The Veterinary Record.

(Founded by William Hunting F.R.C.V.S., 1888.)

No. 45. NOVEMBER 9, 1929. VOL. 9.

REPORT OF THE DEPARTMENTAL COMMITTEE ON THE RECONSTRUCTION OF THE ROYAL VETERINARY COLLEGE.*

Minute of Appointment.

I hereby appoint the following to be a Committee to consider and report generally on the reconstruction of the Royal Veterinary College and the probable cost; and in particular on the questions what accommodation should be provided, having regard to the training to be given; whether that accommodation can and should be provided on the present site; if not, where the College should be transferred: and what arrangements should be made in respect of the Animal Pathology Research Institute now situated at the College, if it appears necessary to change the existing arrangements:—

Dr. O. CHARNOCK BRADLEY, M.D., D.Sc., M.R.C.V.S.
Lt.-Col. Sir MERRIK R. BURRELL, Bart., C.B.E.
H. E. DALE, Esq., C.B.
Sir W. M. FLETCHER, C.B., K.B.E., Sc.D., F.R.S.
Sir J. R. JACKSON, M.R.C.V.S.
Professor J. SHARE JONES, D.V.Sc., M.Sc., F.R.C.V.S.
Sir C. J. MARTIN, C.M.G., M.B., D.Sc., F.R.S., F.R.C.P.
Sir E. COOPER PERRY, M.D., F.R.C.P.
Major-General H. T. SAWYER, C.B., D.S.O.
Lt.-Col. Sir ARCHIBALD WEIGALL, K.C.M.G.

I appoint Sir C. J. MARTIN to be Chairman, and Dr. V. E. WILKINS, of the Ministry of Agriculture and Fisheries, to be Secretary.

(Signed) WALTER GUINNESS,
Minister of Agriculture and Fisheries.

30th July, 1928.

Departmental Committee on the Royal Veterinary College.

REPORT.

SIR,

We were appointed on 30th July, 1928, by the Right Hon. WALTER GUINNESS, D.S.O., M.P., then Minister of Agriculture and Fisheries . . . . [here follow terms of reference from above Minute of Appointment].

We have interpreted the terms of reference as relating not merely to the Royal Veterinary College and the Animal Pathology Research Institute as buildings but as bodies with traditions and aims, and in pursuance of this interpretation we have, in addition to dealing with the question of physical reconstruction, made suggestions regarding constitution and government.

(2) We have held twelve meetings, and in addition two meetings were held by a Sub-Committee appointed to investigate the detailed accommodation required and prepare plans. Evidence has been taken from the following witnesses:—

Dr. W. H. Andrews, D.Sc., M.R.C.V.S., Director of the Veterinary Laboratory of the Ministry of Agriculture and Fisheries.

Professor G. W. Clough, D.Sc., Royal Veterinary College.

Professor F. T. G. Hobday, C.M.G., F.R.C.V.S., F.R.S.E., Principal of the Royal Veterinary College.

Sir John McFadyean, M.B., B.Sc., M.R.C.V.S., late Principal of the Royal Veterinary College.

Dr. F. C. Minett, D.Sc., M.R.C.V.S., Director of Research, Research Institute in Animal Pathology, Royal Veterinary College.

Major-General Sir John Moore, K.C.M.G., C.B., F.R.C.V.S.

Mr. T. C. Wight, Secretary, Royal Veterinary College.

(3) It is unnecessary to emphasise the deplorable condition to which the College has been reduced both as regards buildings and finance. The matter has been dealt with in the recent report of the Committee on the Colonial Veterinary Service, of which a pertinent extract is attached (Appendix A). That Committee visited the College in order to verify the disturbing evidence they had received concerning it. They report: "We do not hesitate to say that we were dismayed by what we saw." The facts, moreover, are well known to the Ministry of Agriculture and Fisheries. Suffice it to say, therefore, that with the exception of one building which is of fairly recent date, the College is in a state of dilapidation and the work is being carried on under conditions which are a national disgrace. As regards finance the end of the current year will find the College devoid of all reserves, with its prospective income insufficient to cover essential expenditure. The Governing Body have only been able to accept students for the coming session on a semi-official statement by the Ministry that, even if the College had to close its doors, the Government would be unlikely to refuse the financial assistance necessary to enable the Governors to discharge their obligations towards students who had been accepted for training.

(4) No good purpose would be served by attempting to trace the various steps which have led to this lamentable position. We can, however, say with confidence that whatever bad effect may have resulted from the particular form of government laid down for the College by the provisions of the existing Charter—a point to which we refer in more detail later—the pass to which affairs have been brought has not been due to any lack of enthusiasm on the part of those few members of the Governing Body who for so many years past have been sufficiently public-spirited to devote attention to the affairs of the College, or to the small staff who, despite their meagre salaries and wholly inadequate facilities, continued loyally at their work. It is nothing less than extraordinary that the

* Issued by the Ministry of Agriculture and printed and published by His Majesty's Stationery Office. To be purchased directly from H.M. Stationery Office at the following addresses: Adastral House, Kingsway, London, W.C.2; 120 George Street, Edinburgh; York Street, Manchester; 1 St. Andrew's Crescent, Cardiff; 15 Donegall Square West, Belfast; or through any Bookseller. Price, 1s. 3d. net.

College has been able, in spite of the most depressing circumstances, to turn out year by year a regular flow of qualified students.

(5) This apparent adequacy, however, has had one actual disadvantage, inasmuch as it has in large measure obscured from public attention the gradual decay which was creeping over the College. So long as the students were passing examinations and Camden Town was recognised as one of the important centres of veterinary education, it was assumed that all was well. Actually, however, the process of degeneration had set in years ago, and the ideals of scientific attainment desirable for a veterinary surgeon, and the status of the veterinary profession, cannot fail to have suffered by the lack of proper educational facilities and the unworthy conditions by which the students were surrounded.

(6) A possible way out was offered after the war, when the Ministry made a definite suggestion to the Governors for the transference of the College to Cambridge. For reasons which on consideration we are bound to say appear to us to have been adequate, the Governors could not see their way to accept the suggestion. Shortly afterwards, by means of funds made available under the Corn Production Acts (Repeal) Act, 1921, the present Research Institute in Animal Pathology was established—undoubtedly an asset to the College but of little or no value to the Governors in their struggle against financial difficulties. The Ministry's annual grant to the College was certainly increased, but the increase was insufficient to meet the growing excess of expenditure over income, and the condition of the educational buildings became steadily worse. As a result the position is now desperate, and our appointment as a Committee to submit proposals for reconstruction has been made only just in time to preserve the College from dissolution.

(7) We have to remember, also, the change that has occurred during the past century in the position and responsibilities of the veterinary profession. When the College was founded in 1791 the veterinarian was a horse-leech. As knowledge of the nature and causes of disease grew his sphere of usefulness was correspondingly enlarged, and at the same time his educational requirements became more extensive and costly. Of late years, the enlistment of veterinary science into the service of the State has occurred more and more generally, and the interests of stock-raising, dairying and public health now absorb a considerable proportion of the profession. This tendency will continue in an increasing degree in every civilised State. The equipment and staffing of a modern veterinary college must provide not only for the supply of general veterinary practitioners, but for the demands of the State and public authorities.

(8) In considering proposals for the rebuilding of the Royal Veterinary College we have had to take account of certain conditions already existing. In the first place, the course of training is in its essentials governed by the regulations of the Royal College of Veterinary Surgeons, the only portal to the veterinary profession in this country. Secondly, the College has already built up a considerable professional connection at Camden Town which, on the one hand, secures a ready flow of sick animals, the treatment of which provides essential material for the training of students, and, on the other hand, produces a substantial income from subscribers. Thirdly, the Research Institute has recently been placed on the Camden Town site as a building complete in itself, with its own offices, library, museum, etc., and designed for the specific purpose for which it is used; moreover, the expenses of the Institute are met by a separate grant from the Development Fund distinct from the educational grant made by the Ministry to the College.

(9) Subject to the above conditions our preliminary deliberations were designed to answer the following questions:—

(*a*) What training should the College provide?
(*b*) For how many students should provision be made?
(*c*) Is a rural site or a town site preferable?

The Training to be given.

(10) The Diploma of the Royal College of Veterinary Surgeons, which must be obtained by all students who wish to practise as veterinary surgeons in the United Kingdom, requires a minimum period of four years' study at an approved Veterinary College, and at the end of each year an examination must be passed before the next year's course of study can be commenced. The curriculum includes the following subjects:—

First Year:
(i) Chemistry and Physics.
(ii) Botany and Zoology.
(iii) Anatomy of the domesticated animals.

Second Year:
(i) Anatomy of the domesticated animals.
(ii) Physiology and Histology.
(iii) Stable management, the manipulation of animals, and the principles of shoeing.

Third Year:
(i) Pathology, including Bacteriology and Protozoology.
(ii) Materia Medica, Pharmacology and Toxicology.
(iii) Veterinary Hygiene and Dietetics.

Fourth Year:
(i) Principles and practice of veterinary medicine.
(ii) Meat inspection.
(iii) Principles and practice of veterinary surgery.
(iv) Obstetrics.

(11) As some prominence has been given to the suggestion that it would be in the ultimate interests of the veterinary profession if the first year's studies were taken before the students entered the College for the more strictly "professional" part of the course, we investigated this point and took evidence upon it. At present, the R.C.V.S. regulations would prevent it, but even assuming they were amended to make the proposal practicable, we doubt its desirability. It is unlikely that the arrangement would lead in practice to much intermingling between veterinary students and those of other faculties; the veterinary classes would probably be under separate teachers, and opportunities for association with other students would be few. On the other hand, by taking their first year's course outside the veterinary college, the students would be deprived of the benefit of that early contact with the College teachers, and with the general atmosphere of veterinary work, which is often helpful in

stimulating their interest in the profession they are proposing to enter. From the financial standpoint, little would be gained. There might be a small saving in the capital cost of the new building if provision had not to be made for teaching the preliminary sciences, but as regards maintenance the "farming out" of such teaching to another institution would probably be uneconomical. It is recommended later (paragraph 13) that the department presided over by the professor of chemistry should also be responsible for toxicology, and that directed by the professor of biology for protozoology and entomology, an arrangement making for unity between the teaching of these preliminary sciences and their extension and application to the more professional subjects of the curriculum. Further, we are convinced that collegiate association with a chemist and a biologist is of very great value to colleagues who are engaged in teaching and research in the departments of physiology, pathology, bacteriology and epizootiology.

We are, therefore, of the opinion that the Royal Veterinary College should continue to make provision for the teaching of the first year's subjects.

(12) We have not thought it within our province to discuss the curriculum. Views have been placed before us to the effect that greater attention should be paid to the subjects of animal husbandry, the principles of genetics and the hygiene of milk and meat; and we notice also that the Colonial Services Committee emphasises the need for a sound working knowledge of animal genetics and nutrition as a part of the qualifications required by the Colonial veterinary service. So far as we are concerned as a Committee, we have confined ourselves to making provision for any necessary strengthening of the existing curriculum, in the proposals for building and staffing which we submit later in this report. If these proposals are adopted, they would enable the College to provide training adequate to the needs of veterinary science in this country. Moreover, by including reasonably generous research facilities and an adequate and qualified teaching staff, they would meet any likely demands for post-graduate and "refresher" courses for home veterinary surgeons: and—a point to which we attach great importance—would place the College in a position to offer the post-graduate courses suggested by the Colonial Services Committee as being essential to the proper training of veterinary surgeons for work in the Colonies.

(13) On the basis of the above considerations, we have come to the conclusion that the College should make provision for the following nine departments:—

Surgery and obstetrics;
Medicine;
Animal husbandry, zootechnics, hygiene and State medicine and the production of meat and milk;
Pathology, with bacteriology and animal parasitology;
Pharmacology and therapeutics;
Physiology with animal nutrition and bio-chemistry;
Anatomy, surgical and applied anatomy, histology and embryology;
Biology, protozoology, entomology and genetics;
Chemistry with toxicology and elementary physics.

Each department should be in the charge of a whole-time professor, with at least one whole-time senior assistant. There should be adequate facilities for research and post-graduate work, and rooms for extra lecturers and research workers should be provided.

(14) The above staffing proposals would involve the Governors of the College in a much greater annual expenditure on salaries than they now have to defray. At present, in addition to the Principal (who also undertakes the duties of the Professor of Surgery) there are four whole-time and three part-time professors, the total salary bill amounting to less than £7,000. If the revised scheme which we now submit were in full operation this cost would be trebled. We anticipate that criticism of the scheme as being too ambitious may be forthcoming from those who are concerned solely with finance and who have regard only to the numbers receiving tuition and the cost per head of their instruction. We wish to make it clear, therefore, that our proposals represent the minimum provision which must be made if adequate training is to be afforded. The veterinary course is very comprehensive; the students require a training as wide as that given in the medical profession. At the end of their course the career open to them is not sufficiently lucrative to justify the payment of high fees for their course of training; and the number entering the profession annually is insignificant compared with the corresponding figure for human medicine. It is true that the College has been forced to "carry on" for some years with a smaller staff and with a miserably low scale of remuneration for teachers; but when a thoroughly unsatisfactory state of affairs is brought to light it should be the duty of those concerned to make sure that it is not allowed to continue. Should further argument be needed to justify the recommendation of an augmented staff with salaries sufficient to attract suitably-qualified teachers, we need only mention the great importance of the stock-raising and dairying industries to this country, and the vast national losses inflicted annually by animal diseases. The foundations for advances in animal husbandry and for the fruitful investigation of animal diseases can best be laid by the endowment of a system of education which will ensure a due proportion of discoverers in the future.

Number of Students to be provided for.

(15) The number of students in training at the Royal Veterinary College during the past few years has ranged from 128 in 1924-25 to 157 (including 17 women students) during last session. The total entry at the remaining three veterinary colleges in Great Britain, *viz.*, Edinburgh, Glasgow and Liverpool, amounted last session to 216. We are informed that these numbers are insufficient to provide the required recruits into the ranks of the veterinary profession under present conditions.

(16) It is necessary also to bear in mind the probable demands in the future. We have considered this matter, and are of opinion that the demand for veterinary surgeons in this country will expand. Every year the importance of the preventive side of veterinary medicine is coming into greater prominence, and the number of veterinary surgeons required to fill public appointments increases. Further, the agriculturist is becoming more appreciative of the value of the veterinary surgeon's assistance, not only in combating epizootic diseases, but in solving economic problems associated with the yield of meat and milk.

(17) We are of opinion that in planning the new veterinary college provision should be made for an annual entry of 75 students, with total accommodation for 250. This assumes that of the students entering the college, only about 80 per cent. will proceed beyond the first year—an assumption based on actual experience in the past. In providing for a total of 250 students (men and women) we have assumed that entries to other veterinary colleges will also increase, and that it is not the policy of the Royal Veterinary College to attract students who might otherwise have gone to Edinburgh, Glasgow or Liverpool.

The Site.

(18) We turn now to the vexed question of the location of the College. There have, we are informed, been differences of opinion on this point, and unfortunately the feeling has arisen that the decision of the Governing Body not to transfer to Cambridge, mentioned in paragraph 6 above, was influenced to some extent by personal considerations, and the desire to preserve the individuality and independence of the College. We would like to make clear, therefore, that the conclusion to which we have come, which supports entirely the view previously taken by the Governors, has been arrived at solely from consideration of the interests of veterinary education, and after taking account of every aspect of a rather difficult problem.

(19) In the first place it is significant that the most successful veterinary colleges have been situated in the vicinity of cities. Utrecht, Leipzig, Vienna, Alfort, Milan, Riga, Stockholm, are a few of the leading veterinary institutions of Europe ; in all cases they are situated in great centres of population. The reasons are not far to seek. First, it is vital to a sound training in medicine, whether human or animal, that ample facilities should be available for the demonstration of actual sickness and disease. In medicine, this is secured through the hospitals, in veterinary science through the clinic which must always be associated with the veterinary college. It is of the utmost importance that a ready flow of sick animals should be passing continually through the clinic, and this can obviously only be secured in a thickly populated district. Second, the city has advantages from the standpoint of accessibility to students, and—more important still—makes possible the intermingling of teachers and students of various faculties, and so obviates the very real dangers of intellectual isolation.

(20) It is true that the city veterinary clinic is largely composed of horses, dogs and cats, and that from the agricultural standpoint it would be better if farm animals were the rule rather than the exception ; but this seems to be a drawback which is insuperable. A veterinary college in the country would lose almost completely this invaluable connection, and it is more than doubtful if farm animals in any numbers would be forthcoming to fll the gap. Practising veterinary surgeons in the district would not look kindly on the intrusion of such a serious competitor as a veterinary college clinic, and the prospect of attracting substantially more "cases" than might be brought to a town clinic by a motor ambulance service is uncertain. Moreover, the fundamental sciences underlying the treatment of animal diseases and the principles of surgery are successfully taught with the smaller animals, and experience shows that the students' relatively slight acquaintance with farm animals can be supplemented during vacations by residence with practising veterinary surgeons and farmers.

(21) It has been urged that the veterinary surgeon's training ought to contain more provision than it does for acquainting students with first-hand knowledge of the farm animal in health, and this view has been put forward in support of the contention that a rural site, with a farm attached, is desirable, or at least that the college, if situated in a city, should have a farm on the outskirts to which students could be taken to gain acquaintance with animal husbandry as part of their course of study. We agree that the more the veterinary surgeon knows about the healthy animal the better qualified will he be to treat the sick one, and that if in his already crowded course it is possible to increase the provision for imparting practical knowledge of stock management it would be all to the good ; but we hardly think it necessary that the College should own a farm for the purpose. Experience on a farm and subsequent residence with a veterinary surgeon during vacations would give the student a good deal of insight into the practical conditions of stock management, and during terms it should be possible to make arrangements for instructional visits to one or other of the educational farms which are now established in all parts of the country.

(22) We feel, therefore, that the weight of evidence is in favour of an urban site, and having come to that conclusion, the next point to establish is where the site should be. Before discussing that subject, however, it is necessary to consider another important question that has arisen, namely, that of the desirability or otherwise of affiliation with a University.

University Affiliation.

(23) The Royal Veterinary College at present has on its staff teachers who are "recognised" by the University of London for the purpose of the instruction requisite for the internal degree of B.Sc. in Veterinary Science. That degree can, therefore, be taken from the College, and a small proportion of the College students are now studying for the University degree as well as for the diploma of the Royal College of Veterinary Surgeons. This constitutes, however, the sole link between the University and the College ; apart from it, the latter is an entirely independent body, pursuing its own course, and deriving no advantage from its close proximity to the greatest centre of learning in the Empire. The College students live either at home or in rooms in various parts of the metropolis ; there is little corporate life, and no opportunity for mingling with the great band of aspirants for University graduation who are destined to recruit the ranks of scientific workers at home and abroad.

(24) From every point of view this is wrong. All branches of science have much in common, and the intermingling of students assists in creating the broader outlook and spirit of co-operative endeavour which contributes so largely to scientific progress. Moreover, the community life resulting from membership of a University is helpful to the students in their recreations and games, and encourages the true conception of citizenship which in their after career will be so great an asset. The isolated atmosphere in which the Royal Veterinary College has pursued its course in the past has been bad for the students and for the large section of the veterinary profession which they represent. We

feel that the possibility of organic association with a University should be one of the factors governing a decision on the question of the future situation of the College.

(25) We have, therefore, taken the opportunity of exploring, in consultation with representatives of the University of London, the conditions under which the College might become a School of the University, and the concrete benefits which would accrue from such affiliation. Briefly, we understand that the principal conditions may be summarised as follows :—

(*a*) The College must be in a sound financial position ; that is, it must be reasonably solvent.

(*b*) Professors and Readers of the College would be appointed by special Boards of Advisors on which the University and the College would be represented.

(*c*) Professors must be paid a salary of not less than £1,000 year ; Readers, not less than £500 ; and " Recognised Teachers," not less than £300.

(*d*) Departments must be properly equipped, and professors, readers and recognised teachers must be afforded proper facilities for research in addition to their teaching duties.

(*e*) The College must establish an Academic Board who would be consulted on all educational matters.

(*f*) There would be periodical visitations of the College by the University. Such visitations are normally held about once in five years and are for the purpose of satisfying the University that the general standard of efficiency of the College was being maintained.

(*g*) Under the new Statutes of the University, supreme financial responsibility is vested in the Court, which will conduct all negotiations for obtaining grants from public bodies, etc. (It is unlikely, however, that the procedure to be laid down in this connection would prevent the Ministry's grants to the Royal Veterinary College from being specifically " earmarked " for that purpose.) The College accounts must be formally submitted each year for the scrutiny of the Court.

(26) Assuming that these conditions were fulfilled and the College were accepted by the University as a school, it would have in the first place the advantage of University status both in relation to its educational work by which students at the College could proceed to the University's internal degree without necessarily receiving all their instruction from Recognised Teachers, and on the social side in so far as the students would be able to avail themselves of such facilities for social intercourse as belong to the University as a corporate body. It would not follow that all students of the College would automatically become internal students of the University, as it is obvious that the University could only describe in this way those students who were taking the University degree ; but under the new statutes the remaining students of the Royal Veterinary College, who at present form the large majority, would, as in the case of non-matriculated students of London medical schools, be " associate " students of the University, and would be eligible for all the privileges available for students of the University as a whole.

(27) We have ascertained that it is improbable that the Governors of the Royal Veterinary College would object to any of the conditions enumerated in paragraph 25 above, but that on the contrary they would be likely to welcome an active interest in the College on the part of the Senate and Court of the University.

(28) In our opinion, taking into account the considerations outlined in the preceding paragraphs, London is in many ways admirably suited for the purposes of a veterinary college. There is, it is true, one important drawback, in the fact that it contains no agricultural college, and the association of veterinary science with agriculture is too clearly desirable to make it necessary for us to emphasise it in this report. On the other hand, a veterinary college in London can, with proper organisation, have the advantage of close touch with the medical and other science schools of the University, including the London School if Hygiene and Tropical Medicine with its Field Institute of Agricultural Parasitology—an important benefit, especially in relation to the requirements of the Colonial veterinary services. On the whole, therefore, and in view of the long association of the Royal Veterinary College with London, we are of the opinion that a transfer to another city would be inimical to its best interests.

The Camden Town Site.

(29) There remains to be considered the question of the site. The present site at Camden Town is approximately 2½ acres in extent, and has been the home of the College since its foundation in 1791. The buildings are situated round the central courtyard, the block to the east of the courtyard consisting of a covered ride with a museum, library and lecture theatre above, having been constructed as recently as 1891. The other buildings, including the Principal's house, are in a very dilapidated condition and have been condemned by the London County Council as a dangerous structure. A certain number of loose boxes and accommodation for small animals are provided, as well as a clinic for the treatment of sick animals. The site is held on a 99 years' lease (from 1923) from the Ecclesiastical Commissioners, which provides that the premises are to be used only as a veterinary College. The rent paid, including rates, is about £1,000 per annum. The site would probably be worth slightly more to the Ecclesiastical Commissioners if it were vacated by the Royal Veterinary College.

(30) The Camden Town site is admittedly not an ideal position for an educational institution. It is in a congested district ; the noise of traffic is a hindrance to lecturing and research work, and the general outlook of the College is not inspiring to the students. There are, however, compensating advantages. The site is readily accessible from most parts of London. It is close to the Islington Cattle Market. The college is able to secure an abundance of the smaller animals for the clinic, and an appreciable number of horses. University College, the London School of Hygiene and Tropical Medicine, and the central University site at Bloomsbury, are in reasonable proximity. No other area of land of sufficient size is available in the neighbourhood, and after examining the possibilities of alternative positions with some thoroughness, we came to the conclusion that it would be a mistake to remove the College from Camden Town, unless it were found impossible to provide there all the requisite buildings and facilities for a well-equipped modern veterinary college on the lines which we have indicated above to be desirable. Before provisional plans could be drawn, however, it was necessary

to consider the question of the Animal Pathology Research Institute, now situated at the College, and we must again digress in order to present our views on this part of our terms of reference.

The Research Institute.

(31) The Animal Pathology Research Institute was erected in 1926 at a cost of about £33,000, towards which the Ministry paid a grant of £31,500. The staff consists of a Director, two Senior Assistants and two Junior Assistants with the necessary laboratory assistants. A maintenance grant of £5,000 per annum is forthcoming from the Development Fund. The Institute is governed by a Research Committee appointed by the Governors, consisting in part of members of the General Purposes Committee (the effective Governing Body of the College) and in part of members appointed from outside. The Committee has decided that the attention of the Institute should for the present be devoted to a study of the more important contagious diseases of cattle, such as epizootic abortion, Johne's disease and mastitis.

(32) We consider that the grant of £5,000 per annum is insufficient for really effective work on animal diseases. The Director informed us that the grant is largely absorbed by salaries and administrative services, and that the investigation of mastitis, which the Institute is at present conducting, has only been made possible through assistance from the Royal Agricultural Society of England.

(33) A more fundamental defect of the existing condition concerns the relationship between the Research Institute and the College. We deprecate the arrangement which appears to have obtained hitherto under which the Institute, although ultimately under the same Governing Body as the College, has carried out its work as a separate unit, to the mutual disadvantage of both. The closest relationship should exist between the two, not only by reason of the "inspiration" which research gives by teaching, but because a teacher is not likely to induce even the best type of student to consider the possibility of scientific investigation as a career unless he himself is actively engaged in research. Otherwise he fails to infect his students with enthusiasm to increase the bounds of knowledge, and as a consequence the next generation lacks capable investigators. If the Research Institute had not already been in existence, we would have recommended the erection of one building only for both College and Institute, so as to secure the fullest measure of contact between teaching and research. In the circumstances, the practical scheme open to us is to link up the College building physically with that of the Institute, and to use such influence as we may be able to exert through the medium of this report by emphasising the need for such internal organisation as shall ensure intimate co-operation between the work of the College and the Institute.

(34) This assumes, of course, the possibility of including both the new College and the Research Institute on the existing site—a point we have yet to deal with. An alternative would be to transfer the Institute elsewhere, and make such use of the building as is possible for teaching purposes. The present Director of the Institute is strongly in favour of moving it to a rural site, mainly in view of the difficulty of conducting investigations into the diseases of large animals in a congested urban centre. We appreciate the force of his arguments, but we think they are out-weighed by two considerations: first, that it would be more effective and economical to strengthen the other research institutes in animal pathology than to build a new one; second, that in the interests of veterinary education it is clearly desirable to retain the Research Institute in close contact with the College. At the same time, we agree that the Research Institute is cramped for space, and is in urgent need of land in the vicinity of London for the purposes of experimental work with farm animals. The provision of such a field station might also be made an asset to the College for the purpose of occasional demonstrations to the senior student and in other ways.

Rebuilding Proposals.

(35) We thus reached a stage when we were in a position to formulate definite proposals for rebuilding and to seek architects' advice on the practicability of carrying them into effect. The schedule of accommodation which was submitted to the architects is printed as Appendix B to this Report. We would draw special attention to the fact that adequate provision is made for staffing and research facilities for each of the nine requisite departments of the College, on lines which would not only fulfil the conditions of a school of the University of London, but would also meet the requirements of the Colonial Veterinary Services as adumbrated in the proposals of the Colonial Veterinary Services Committee for the establishment of a School of Tropical Veterinary Medicine. Major H. P. G. Maule, Architect to the Governing Body of the College, was asked to prepare plans on the basis of this schedule of accommodation in consultation with Captain E. Gunn, Superintendent Architect of the Ministry. Major Maule has within the past two or three years visited most of the important veterinary education and research institutions on the Continent, and was therefore able to take full advantage of continental experience.

(36) The existing site of 2½ acres is more restricted than is desirable to allow for future extensions of the College, but an additional half-acre adjoining it on the north side could, we understand, be acquired. This extra land is also owned by the Ecclesiastical Commissioners, and is at present occupied by cottages let on weekly or six-monthly tenancies, subject to the provisions of the Rent Restrictions Acts.

(37) After considering the matter fully, and preparing complete plans, the architects were able to satisfy the Committee that a college containing all the accommodation mentioned in the schedule could be erected on the existing site. If this scheme were adopted, the additional half-acre of land would be available for necessary future development. On the other hand, should the Governors of the College be able to secure the tenancies of the cottages, they might desire to plan the new building on the larger area of three acres. In either case, the approximate cost would probably be in the neighbourhood of £280,000, although this figure would be slightly reduced if the buildings were erected on the smaller area. This estimate includes fittings and equipment. The building scheme could be carried out over a period of, say, three years, without seriously interrupting the work of the College.

(38) As indicated earlier in this report, the existing College site is held on a 99 years' lease, and it would clearly

be most desirable for the freehold to be acquired before new buildings were erected. It is possible that the Ecclesiastical Commissioners might be willing to sell the freehold of the present site and the additional cottages area for, say, £20,000. We strongly recommend that the whole area should be acquired. In this case the total cost of the building scheme may be approximately estimated at £300,000. This scheme represents, in our opinion, the *minimum* provision which should be made for the building of a modern, suitably-equipped veterinary college at Camden Town.

Staffing and Maintenance.

(39) The staffing and maintenance of the new College remain to be considered. It may be assumed that, as compared with existing conditions, the principal items of increase would be staff salaries, rates, taxes and insurance, and general maintenance, while savings would be effected under the headings of rent, which would come out, and repairs and painting, an item which is at present involving the Governors in considerable annual expenditure. Only the most conjectural forecast can, of course, be made, and we hesitate to suggest even approximate figures ; but we think that possibly the rating and insurance charge might be increased by £3,500 per annum and the general upkeep by £2,500, and that against this there might be a saving of £1,000 in rent and repairs, making a net increase in maintenance cost of £5,000 per annum. The staffing question presents a more difficult problem. If our proposals were put into effect in their entirety the total salary bill would be in the neighbourhood of £20,000 per annum, as against the present figure of £6,700. It has also to be remembered that at present the maintenance of the College is involving the Governors in a loss of approximately £3,000 per annum, and that the assets from which this loss has been met in past years are exhausted. The three figures of increase thus arrived at, namely, maintenance £5,000, Salaries £13,000 and charge against deficit £3,000, together make a total of £21,000 per annum. In addition, provision will be required for research expenditure in each of the nine professional departments, including the cost of animals, apparatus, chemicals, etc. Each department would require from £500 a year upwards for this purpose, according to its activity.

(40) It is clear, therefore, that the College is as much in need of increased income as of adequate buildings and equipment, and it would be of little service to provide new buildings, involving increased salary and maintenance charges, unless an income sufficient to meet those responsibilities were in sight.

(41) The above estimates of cost relate only to the College, and take no account of the Research Institute. In regard to the latter, we recommend (*a*) that the annual maintenance grant from the Ministry should be considerably increased ; (*b*) that a sum of £25,000 should be provided for the purchase and equipment of an area of land in the vicinity of London to enable the Institute to conduct under proper conditions experimental work with the larger animals. The actual cost would naturally depend on the position of the Field Station, but we think the figure we have mentioned should suffice to cover the price of the land and of the buildings (loose boxes, stores and offices) which it would be necessary to erect.

Government of the College.

(42) Finally, we come to the question of the government of the College. At present the College is administered in effect by the General Purposes Committee, and the Charter provides that the acts it performs are the acts of the Governors. The Committee consists of 19 members, of which three form a quorum. From six to ten members may attend meetings, and generally the same half-dozen are present. The Committee meets about once a quarter. The Finance Committee (a Sub-Committee of the General Purposes Committee) also meets quarterly. The Board of Governors is only required to meet once a year, when the annual accounts and yearly report are presented. The Governors are appointed at the annual meeting of subscribers, but this is a purely formal occasion, and during the past five years only one subscriber has been known to attend. Thus in practice the Governors appoint themselves and appoint the General Purposes Committee. In regard to appointments, the Governors may appoint a small Committee to consider applications, this Committee recommending to the General Purposes Committee which makes the appointments. The special Sub-Committee considers the applications and secures any necessary references, but it has no power to co-opt members, nor has the General Purposes Committee power to appoint a Sub-Committee which does not consist of its own members.

(43) This form of government dates from the incorporation of the College by Royal Charter in 1875, modified by a supplementary charter, granted two years later, under which the number of veterinary surgeons who might serve on the Board of Governors was increased from one to five. The Governing Body is mainly composed of men who are not directly interested in the veterinary profession and have no special knowledge of its requirements. It contains no direct representation of agricultural and scientific interests allied to those of the veterinary practitioner, or of Government Departments. Further, the General Purposes Committee is too large for effective government, and although we have the greatest admiration for the way in which certain of its members have for many years devoted much of their time to the needs of the College, we cannot commend a system under which the administrative responsibility devolves upon a limited number of members of a large body, most of whom have no real interest in the College welfare.

(44) After hearing the views of several members of the Governing Body, we make the following recommendations for the future government of the College :—

(*a*) A Court of Governors should be constituted representative of various agricultural and veterinary institutions or societies having interests in the College, as well as of public men and subscribers aiding its work, the Court to have a President and Vice-Presidents.

(*b*) The executive governing body having the management of the funds of the College and the direction of its work should be a Council constituted as shown below.

(*c*) The Court of Governors should take an important part in appointing the Council. The Court should meet at least once a year to receive and discuss the annual report of the Council and to make such representations upon it as they think fit.

(45) The proposed constitutional machinery may be set out as follows :—

PRESIDENT :

To be appointed by the Court of Governors on the nomination of the Council.

VICE-PRESIDENTS :

To be appointed by the Court of Governors on the nomination of the Council.

COURT OF GOVERNORS :

To be composed of (*a*) the members of the Council (*ex-officio*); (*b*) twenty representative members appointed by such bodies as the Royal College of Veterinary Surgeons, the Royal Agricultural Society of England, etc.; (*c*) ten members elected from their own number of subscribers.

Membership should be limited to not more than four years, retiring members being eligible for re-election.

THE COUNCIL :

To consist of twelve members nominated in the following manner, who would appoint their own Chairman and Treasurer :—

one by the Privy Council and three by the Government Departments principally concerned, *viz.*, Ministry of Agriculture and Fisheries, Ministry of Health, and Colonial Office ;

four by the Court of Governors ;

four by other bodies, *viz.*, University of London 1, Royal Society 1, Royal College of Veterinary Surgeons 2.

(46) The members of the Council should be selected, not as representative of any geographical or institutional interests, but for their personal qualities and acquaintance with the needs of veterinary education. The appointments should not be made for more than four years at a time. Members of the Council nominated by the Court of Governors should only be eligible for re-election after the expiry of one year following the end of their four years' period of service. The Council should meet regularly, say, once a month.

(47) The educational and research work of the College should be under the general supervision of the Director or Principal. He should be present at all the meetings of the Council and act (with necessary clerical assistance) as their Secretary.

(48) From the educational staff should be constituted an Academic Board consisting of the professors and readers, with rotating adequate representation of the junior teachers. The Director or Principal would be the Chairman of the Academic Board, and their normal channel of communication with the Council.

(49) The Council would, as at present, be finally responsible for the affairs of the Research Institute, though its direct management would continue to be entrusted to a Committee which would include a certain number of outside scientific members. We have no criticism of such an organisation, as it allows of the linking up of the work of the institute (through representation on its managing committee) with research in other sciences, especially medical—a form of co-operation which is most desirable.

(50) This, therefore, ends our deliberations. If the recommendations are carried out, they will involve a capital outlay of approximately £325,000; an additional maintenance charge on the College which may be roughly estimated at £21,000 per annum, together with a sum of some £4,500 per annum and upwards to cover the cost of research in the professional departments ; and a substantial addition to the annual grant now made by the Ministry in respect of the work of the Research Institute. We realise that these are relatively large figures, but we have before us three main considerations. First, the Royal Veterinary College, which is the oldest and most widely-known institution for veterinary education and research in the Empire, has been carrying out its work under conditions which are discreditable to a civilised community, and is now in imminent danger of closing down for lack of funds. We cannot think it right that there should be such an end to the labours of nearly a century and a half—labours, moreover, of which the continuance is imperatively demanded by the national interest. Secondly, it is useless to contemplate half measures ; if the reconstruction of the College is to be undertaken at all, it must be undertaken thoroughly. Thirdly, in its main outlines such a reconstruction must be designed to meet the requirements not of a few years but of the next half century; it is neither right nor possible to expect that the effort now required can be soon repeated.

(51) Our proposals will, we think, seem moderate to anyone who reflects on the great importance of the dairying and livestock industries, and on the immense national losses through diseases of stock. It is scarcely our province to consider from what source or sources the money required may be forthcoming ; but we may perhaps be permitted two remarks. The public appeal which the Governing Body has made during the last three years for funds for rebuilding has met with an indifferent response ; only a little over £30,000 has been collected. The veterinary profession cannot be expected to bear the burden of cost ; its numbers are small and its resources extremely limited. We can only conclude by saying that the interests of the community are deeply involved, and the community must decide whether it can afford to be content with anything less than an adequate and progressive system of veterinary education and research.

(52) Finally we wish to express our appreciation of the able assistance afforded us by our Secretary, Dr. V. E. Wilkins, both during our deliberations and in the framing of our Report.

We are, Sir,

Your obedient Servants,

CHARLES J. MARTIN (*Chairman*).
O. CHARNOCK BRADLEY.
MERRIK R. BURRELL.
H. E. DALE.
WALTER M. FLETCHER.
J. R. JACKSON.
J. SHARE JONES.
E. C. PERRY.
H. T. SAWYER.
ARCHIBALD WEIGALL.

V. E. WILKINS, *Secretary*.

8th August, 1929.

Summary of Conclusions.

1. The condition of the Royal Veterinary College is a national disgrace. The building is for the most part in a

state of dilapidation and much of it has been condemned by the local authority as a dangerous structure. At the end of the current year the Governing Body will have exhausted all its funds, and the prospective income is insufficient to cover essential expenditure.

2. The ideals of scientific attainment desirable for a veterinary surgeon, and the status of the veterinary profession, have suffered by the lack of proper educational facilities and by the miserable conditions by which the College students have been surrounded.

3. The College needs re-building and re-equipping so as to meet not only the requirements for the education of the veterinary practitioner, but the need for officers to satisfy the growing demands of the State and public authorities. Provision should also be made for the proper training of veterinary surgeons for the colonial veterinary services.

4. In view of the increasing demand for adequately trained veterinarians both in this country and in the colonies, and of the educational facilities available at other centres, the re-building scheme for the Royal Veterinary College should allow for a total accommodation of 250 students with an annual entry of 75.

5. The question of site must be governed by two considerations: first, the need for securing the steady flow of sick animals essential for the adequate instruction of students; second, the importance of providing the veterinary students with facilities for intermingling with those in other branches of learning. For these reasons a rural site is undesirable. The College should be situated in the vicinity of a centre of population, and should be closely associated with a university.

6. London, with its vast population, ensuring the maintenance of adequate clinical material, and by reason of its accessibility, possesses many advantages as a centre of veterinary education. It is reasonably certain that the University of London would admit the College as a School of the University on conditions which the Governing Body (assuming their finances made it practicable) would be willing and glad to accept.

7. It would therefore be in the best interests of the College to remain in London and to secure recognition as a School of the University.

8. The future requirements of the new College, as briefly indicated in paragraphs 3 and 4 above, have been incorporated in outline plans. A building so planned could be erected on the present site at Camden Town, assuming that the existing buildings, with the exception of the Research Institute, were demolished.

9. As the College has been at Camden Town since its foundation in 1791, where it has built up a considerable professional connection in that district, and no other area of land of sufficient size is available in the neighbourhood, it is desirable that the new building should be erected on the existing site, even though its size is only just adequate for the purpose.

10. The freehold of the existing site, if it can be obtained at a reasonable price, should be acquired, together with that of the adjoining site on the north side (now occupied by cottages) in order to permit of subsequent extension.

11. The estimated approximate cost of the suggested new building, including equipment, is £280,000. If the freeholds mentioned in the preceding paragraph could be secured for £20,000, the all-in capital cost of the re-building scheme may be put at approximately £300,000.

12. The cost of staffing and maintaining the new College would involve an additional charge on the College funds which may be roughly estimated at £21,000 per annum. It would be unwise to embark on the erection of new buildings unless such additional income were in sight. Provision will also be wanted for the expenses of research carried on in the nine professional departments of the College, which may cost from £500 upwards per annum for each department, according to the extent of its research activities.

13. The Research Institute should remain where it is, but the existing maintenance grant of £5,000 per annum from the Ministry should be substantially increased. The Institute should also be provided with a field station in the vicinity of London for the purpose of experimental work with the larger animals, and a sum of £25,000 should be made available for its purchase and equipment.

14. More effective co-operation should be established between the College and the Research Institute.

15. The government of the College should be re-constituted under a revised Charter. Executive responsibility should be in the hands of a small body of men, selected for their personal qualities and acquaintance with the needs of veterinary education.

Appendix A.

EXTRACT FROM THE REPORT OF THE COLONIAL VETERINARY SERVICES ORGANISATION COMMITTEE (CMD. 3261).

(The Committee was appointed in July, 1927, under the chairmanship of The Lord Lovat, K.T., K.C.M.G., K.C.V.O., C.B., D.S.O., and reported in November, 1928.)

* * *

18. But the trouble goes deeper than this. It is not merely a question of curriculum, but the conditions under which the training is given. In our opinion these conditions are profoundly unsatisfactory. The main cause is lack of funds. The first veterinary school was founded in 1791 and from the beginning has been handicapped in this respect. The other schools which have been formed later have all suffered from the same defect. As a consequence it has not been possible to offer sufficient inducements to attract enough qualified teachers. Most of the existing staffs appear to instruct in too many subjects and the accommodation and equipment at their disposal are often lamentably inadequate.

19. In order to check the disturbing evidence which we received on such points as these, we visited the Royal Veterinary College at Camden Town, by invitation of the Principal. We do not hesitate to say that we were dismayed by what we saw. While we were much impressed by the efforts which the Principal and his staff are now making under adverse conditions, we could not but receive a general impression of starvation and neglect. We noticed that the walls in many of the buildings were dangerously cracked and propped up by struts for the sake of safety. The students in the laboratories were so cramped that efficient work on their part seemed impossible. We were told that hot water was not laid on throughout the building, and we noted that telephones and electric light were only then in process of being installed. What a contrast to the order and cleanliness and the wealth of modern resources and equipment which are so obvious in any of the medical schools attached to the great hospitals. It is nothing short of a national disgrace that such a condition of affairs should be allowed to continue. The blame, we think, does not lie with the teaching staff, labouring as they do under the great disadvantage of inadequate

salaries in a school which is both inadequately staffed and equipped. On the contrary, they have made great personal sacrifices, and have themselves provided much of the existing equipment.

20. As in the Colonial Veterinary Departments, the root of the trouble is lack of funds and a certain apathy and lack of vision. Veterinary schools in this country receive but little help from the State and have to rely mainly on students' fees. When we compare the large veterinary institutions in other countries, supported principally by State funds, with those that exist in Great Britain, the contrast is somewhat depressing. We have already referred to the large annual appropriation from Government funds in the Union of South Africa: in Germany the Veterinary College of Berlin receives an annual grant from the State of the value of £28,000. Starved as they are of financial support and cramped and confined in their activities, it is clearly impossible for the veterinary schools to give a training of the scope and quality needed. The profession must needs suffer in efficiency and prestige, and consequently in the attraction it offers as a career to the youth of the country.

21. We have found it necessary to speak strongly on this matter, because the general policy in force seems to be one of drift, and new schemes are framed merely according to available funds and not on any comprehensive plan based on a true appreciation of what is needed. We are convinced that the problem of animal health is so important that the existing conditions both in the training institutions at home and in the Veterinary Departments of the Colonies should no longer be tolerated. In both a new policy is needed, framed on bold and comprehensive lines, supported by adequate funds, and carried through with energy and determination.

* * *

Appendix B.

Staffing and Accommodation Proposals.

The College will consist of nine departments as under:—

—(1) surgery and obstetrics; (2) medicine; (3) animal husbandry, zootechnics, hygiene and State medicine and the production of meat and milk; (4) pathology, with bacteriology and animal parasitology; (5) pharmacology and therapeutics; (6) physiology with animal nutrition and bio-chemistry; (7) anatomy, surgical and applied anatomy, histology and embryology; (8) biology, protozoology, entomology and genetics; (9) chemistry with toxicology and elementary physics.

For these departments accommodation on the scale set out below is considered desirable:—

Chemistry, Biology, Physiology, Pathology, Pharmacology.

These five departments to have one classroom each. For chemistry and biology each classroom should be capable of accommodating 75 students. For the remaining three subjects provision for 50 students in each classsroom would suffice. In addition, each department to have the spatial equivalent of six extra rooms (approximate dimensions 20 feet by 15 feet) to serve as a Professor's Room, an Assistant's Room and Laboratory, Service Room, etc., according to their individual needs.

Anatomy (including Histology).

Six rooms to serve as a Professor's Room (corresponding to a classroom for 50 students), an Assistant's Room, a Bone Room for approximately 40 students, a Dissecting Room for 75 students, a Demonstration Room and a fairly large room for histological students.

Medicine and Surgery.

Five rooms for each subject. A demonstration theatre for sole use of surgery department should also be provided.

Hygiene.

Six rooms including a spare room (each comparatively small).

Special considerations supplementary to the above outlines:

Chemistry Department.—One room should be a Private Laboratory for poison and water analysis.

Balance room for students' use—say six places—may be artificially lighted.

Biology Department.—Students' laboratory should be a long narrow room north lighted with two parallel benches and wall cases for specimens.

Physiology Department.—Benches 16 feet long by 4 feet 6 inches wide, each for eight students.

Pathology Department.—Requires media kitchen, special laboratory for serums and should be placed conveniently to *Post-mortem* Room.

Pharmacology Department.—Wall cases for specimens in Class room.

Anatomy Department.—Slaughterhouse and preparation room needed in connection with Dissecting Room and Demonstration Theatre, with means for moving carcases. Some storage space for live animals.

Medicine Department.—Waiting Room for Patients; clinical diagnosis room for medical and surgical consultation; pharmacy and drug store adjoining consulting room. This department should be contiguous to hospital.

Surgery department including hospital (see also under "Free Clinic").

Operating rooms for small and large animals with preparation, sterilising, and instrument rooms.

Provision for housing about 20 large animals (divisible into medical and surgical cases).

Fodder store, harness room, grooms' messroom.

Food preparation room, horse foot-bath, forge, destructor, covered manure pit, motor ambulance, garage.

Reception stable near entrance.

Canine wards and kennels with bathing and feeding provision.

Cat and bird wards on upper floor.

Isolation kennels for dogs and cats with attendants' rooms.

Dressing and bandage rooms, ray-treatment rooms, photographic rooms.

Covered ride for horse exercising; runs and exercise yards for dogs and cats.

Hygiene Department.—Room for exhibition of lecture models of construction, ventilation, drainage, foodstuffs, etc.

Laboratory for testing water, and other minor tests.

Lecture Rooms.—A large Lecture Theatre to seat 250 students and two smaller Lecture Rooms each for 100 students, available to any department, should be provided. The large theatre should be so placed as to be available also for public functions.

Museum.—A museum adequate to the needs of all departments, excepting for lecture specimens, which in some cases would be housed in class rooms.

Library.—A students' library, which it is suggested should also be fitted so that it may serve as an Examination Hall and for an occasional social gathering.

Social Rooms.—Common rooms for male and female students and for teaching staff, and a refectory with kitchen and other service provision.

Cloak rooms, lavatories, etc., for students, staff, and special departments; storage for cycles.

Administration.—Public Entrance Hall with porters' and telephone boxes. Public Waiting Room, Clerk's Office, Waiting Room for use with Principal and Secretary's Offices. Principal's Room, Secretary's Office with Typist's Room. Board Room.

Resident Staff Accommodation.

A flat for the Principal.

Bed-sitting rooms for three single house surgeons with common room, bathroom, etc., and catering provision in connection with a housekeeper.

A small flat for a caretaker housekeeper (married couple) responsible also for the College catering.

(*Continued at foot of second column next page*).

The Veterinary Record.

9th November, 1929.

A NATIONAL DISGRACE.

When two such committees as the Lovat Committee appointed by the Government in July, 1927, to enquire into Colonial Veterinary Services organisation, and the Departmental Committee appointed in July, 1928, to consider and report on the reconstruction of the Royal Veterinary College characterise a veterinary situation as "a national disgrace," it is high time that drastic remedial measures should be considered and applied. To permit the existence of "disturbing evidences" and "profoundly unsatisfactory" conditions in national affairs is discreditable to a nation; they serve no useful purpose whatever and lead to decay and bankruptcy.

In this week's issue we reproduce in full the long looked-for report of the Departmental Committee which was set up by the Ministry of Agriculture to enquire into the reconstruction of the Royal Veterinary College, London, its probable cost, and other matters incidental to facilities and arrangements necessary for the proper training of the veterinary surgeon, and a higher plane of veterinary professional status generally. We feel sure that the report will be read with the greatest interest by members of the profession and that the momentous points raised will have their studied appraisal. In the interests of professional progress and well-being we take leave to emphasise the remarks made.

It will be remembered that when the rebuilding of the Royal Veterinary College was first decided on—a matter which was most urgently necessary—the official Governmental proposals were to the effect that if the sum of £35,000 could be subscribed privately, a like sum on a pound per pound basis would be furnished from Government sources. The onus of subscription was placed on the profession. What possible use this small amount could be for purposes of adequate reconstruction in all its details, passes comprehension in the light of the Departmental Committee's enquiry and findings. Moreover, to place the burden of the salvation of "a desperate position" on a profession of limited individual means and poor resources generally, had little to commend it, and was bound to fail. The Governors of the College were therefore faced with the alternative of either closing down altogether, or of pressing for an acknowledgment of Government's responsibility in maintaining an institution existing for national requirements and necessities. Hence the urgency for the appointment of a Departmental Committee to go into the whole question.

It is quite certain that unless Government agrees to more sympathetic consideration and a financial backing, the College cannot carry on, and veterinary science, with all that it stands for, will suffer. Let there be no mistake about it. This country and the Empire cannot afford to neglect the means, and the perfected means, whereby animal disease can be and must be controlled, and the livestock industry of agriculture and public health preserved. Poor facilities and a niggard hand will not achieve this. Private institutions for training are things of the past. Progress is never the result of isolation, and success is in accordance with the degree of encouragement received.

The strong recommendation of the Departmental Committee for University affiliation and status merits most careful and impartial consideration in the interest of a profession desirous of being placed on an equal footing with other scientific and academic bodies. The broadening of the basis of veterinary training by the adoption of University principles and the more certain and propitious facilities offered for the attainment of University degrees in Veterinary Science are bound to be of advantage to the graduates and to the State alike.

We therefore appreciate such suggestions as will make for facility of training, sound instruction, and efficiency in veterinary service. We trust that the Government will do its utmost by adequate provision to assist in the maintenance of scientific veterinary training at a high level, which unquestionably will carry its own recompense and reap its own reward economically.

(*Continued from previous page*).

A small flat for the head groom (married couple) near entrance to hospital, and so placed that care of House Surgeons' quarters may combine.

Rooms for second groom near back entrance to hospital.

The Free Clinic.

Reception hall for small animals.
Waiting room.
Some lavatory accommodation, male and female, one w.c. each, one urinal.
Consulting room—two tables.
Dressing room, with glass cupboard, instrument cases.
Operating theatre for small animals (free clinic only).
Sterilising and instrument rooms in connection.
X-ray room and X-ray apparatus, ultra violet, for use of whole College, see under Surgical Department.
Professor's room.
Assistant's room, fitted as laboratory with centrifuge, microscopic work bench, sink, etc.
Small pharmacy for issue of medicine.

Animal Accommodation.

Two boxes, divisible into four stalls.
Forage space.
General store.
Ward for 12 kennels with run.
Ward for small animals.
Food preparation room.
Bath.
Attendant's room.
Isolation ward, say for 10 kennels.
Special ward for one or two kennels.

Post-mortem Department.

Post-mortem room.
Cold storage plant.
Sterilising plant.

CLINICAL AND CASE REPORTS.

Arsenical Poisoning Amongst Domestic Animals.

By G. W. Clough, D.Sc.,
Royal Veterinary College, London.

The *Lancet* (October 12th, 1929, p. 779) has recently directed attention to the advisability of altering the conditions under which arsenical compounds are supplied and used. In a leading article it is stated that "Experts have declared that alternative non-poisonous preparations are available and that the time has come to prohibit altogether the use of arsenic for agricultural and horticultural purposes rather than to continue the present dangers of benevolent toleration." As the *Solicitors Journal* observes, "A chemist may not sell half an ounce of powdered arsenic to a youth under age who wants it for killing rats, but a corn-dealer may sell a gallon of liquid arsenic or a pound of powdered arsenic made up into a packet and called 'weed-killer' to any boy of 16 whom he knows and who says he wants it for killing weeds in his father's garden. The time seems ripe for reconsidering whether arsenical preparations are so indispensable in the garden and on the farm as to justify the exception made in their favour in 1908 and also whether the conditions of their supply and use are not in any case too free from control. It would be instructive to have statistics of the proportion of poisoning cases in which the obtaining of arsenic in the form of sheep-dip or weed-killer has facilitated the commission of crime."

In 1927 I called attention to this question from the point of view of damage to domestic animals by the consumption of arsenical weed-killer, sheep-dip or fruit spray and discussed the advisability of employing substances other than arsenic for agricultural and horticultural purposes. The conclusion was drawn that "arsenic is by no means indispensable in horticulture or agriculture and there would be considerable saving of animal life if its use were restricted." (*Record*, March 5th, 1927, p. 209.) During the past two years I have encountered a number of cases of arsenical poisoning amongst domestic animals and it now appears opportune to place on record a few typical examples of the losses due to arsenical poisoning of animals.

Cattle. Two heifers died after exhibiting symptoms of diarrhœa, staggering gait and abdominal pain. Five calves were also ill with similar symptoms and thirty pheasants were found dead during the same week. Arsenic was found in the viscera of a heifer, the amount separated being approximately $\frac{1}{60}$th part of a grain from one ounce of stomach contents. Weed-killer had been applied to a carriage drive two or three days before the fatalities.

The milk yield from six cows decreased from a gallon to about a quart per head and the animals suffered from acute diarrhœa. Two died in great pain. A new consignment of food was suspected. Arsenic ($\frac{1}{20}$th grain per ounce) was separated from stomach contents. It was subsequently ascertained that an old tin of sheep-dip had been thrown away and it was evident that the cattle had been licking the material.

A yearling Jersey heifer was apparently in good health at 6 p.m., but two hours later she was down and paralysed. She died without a struggle at 10 p.m. *Post-mortem* examination revealed gastro-enteritis. Stomach contents contained $\frac{1}{20}$th grain of arsenic per ounce.

Horses. Seven horses were observed to be suffering from lack of appetite on February 3rd, 1928, and on the following day they exhibited symptoms of purging, abdominal pain, cold extremities and feeble pulse. One died on February 5th, two on the 6th and one on the 7th. *Post-mortem* examination showed gastro-enteritis. The viscera of one was submitted for analysis. The amounts of arsenic separated were $\frac{1}{4}$ grain from one ounce of stomach contents and $\frac{1}{30}$th grain from one ounce of liver. A man was subsequently charged with maliciously killing these horses, but the case was dismissed.

A horse died after showing symptoms of gastro-enteritis. Arsenic was found in the viscera, the amounts separated being $\frac{1}{30}$th grain per ounce of stomach contents, $\frac{1}{60}$th grain per ounce of stomach wall and $\frac{1}{30}$th grain per ounce of liver.

An interesting case of different character was one in which a number of pit ponies suffered from a dermatitis where the skin was in contact with collar and saddle. They recovered when removed from the pit to a field, but again became affected on resuming work in the pit. I subjected the flannel lining of the collar and saddle to analysis and found that arsenic was present to the extent of $\frac{1}{40}$th part of a grain per ounce of flannel. The flannel contained a basic dye (magenta) which was probably the source of the arsenic.

Sheep. Six young rams died after an illness of twenty-four hours, the symptoms being scouring and vomiting. The *post-mortem* revealed gastro-enteritis. The stomach contents contained $\frac{1}{60}$th grain of arsenic per ounce. It transpired that the animals had been put in a dry "dip dyke" for a few hours on the previous night.

Pigs. Six healthy pigs (10 months old) were fed in the morning, but afterwards refused food. Two died during the night but the others recovered. The *post-mortem* examination revealed acute inflammation of stomach and anterior portion of intestines. Arsenic was found to the extent of $\frac{1}{20}$th grain per ounce of stomach contents, $\frac{1}{20}$th grain per ounce of stomach wall, whilst the amount in the food taken from the feeding trough was $\frac{1}{10}$th grain per ounce.

Two young pigs died after showing symptoms of depression, dermatitis and scabs. The *post-mortem* examination revealed no lesions in the alimentary tract or any other organ. The stomach and contents were submitted for analysis and, whilst no arsenic was found in the stomach contents, the stomach wall contained approximately $\frac{1}{10}$th grain per ounce. Probably the arsenic had been absorbed through the skin.

Dogs. A nine months' old Alsatian bitch vomited bloody fluid in the forenoon; at mid-day she was prostrate and in the evening collapsed and died. The stomach was empty. Arsenic ($\frac{1}{120}$th grain) was separated from two ounces of viscera.

A Cocker spaniel dog was taken ill suddenly at noon with symptoms of vomition and intense colic. It died early on the next morning. *Post-mortem* examination

showed extensive inflammation and peritonitis. From the small amount of fluid contents in the stomach $\frac{1}{20}$th part of a grain of arsenic was separated.

CAT. A cat was well in the forenoon, but in the afternoon was observed to be ill and an hour later was stretched out on the floor, writhing and shrieking in pain; it died a few minutes later. Arsenic ($\frac{1}{20}$th grain) was separated from the stomach contents. The source of the arsenic was rat poison, laid by a professional rat catcher, who guaranteed it to be harmless to domestic animals.

BIRDS. Several fowls died suddenly under suspicious circumstances. The crop contents of one bird contained about 10 grains of arsenic per ounce, whilst the whole of the gizzard contents yielded $\frac{1}{60}$th grain. The food (a bran mash) contained approximately 20 grains of arsenic per ounce.

It is well known that the lethal dose of the very slowly soluble compound arsenious oxide in the form of powder administered by the mouth is much greater than that of arsenic in solution. Kaufmann gives the fatal dose of arsenious oxide administered by the mouth as 150 to 700 grains for the horse and 225 to 700 grains for the ox. Green and Dijkman (*S. Africa Journ. Sci.*, 1919, July) state that they dosed one horse with 15 grains of the powder and another with 30 grains daily for a fortnight without ill effect. Another horse had 60 grains daily and died by the time 360 grains had been administered, whilst a fourth received 75 grains twice daily and died after 300 grains had been given. On the other hand, the same authors state that if the arsenic is administered in a soluble form, as sodium arsenite, 15 grains may kill a horse of medium weight, 30 grains is very likely to kill and 45 grains is generally certain. An example of the relatively large doses of white arsenic powder which are tolerated by horses is furnished by a recent case at the Royal Veterinary College Hospital. A bay gelding was prescribed a course of treatment with arsenic, the daily dose commencing with 5 grains of the powder and being gradually increased to 80 grains, the amount received in nine days being 365 grains. The dosage was then gradually diminished from 80 grains per day to 10 grains, the animal receiving 280 grains in 7 days. The treatment was discontinued for a fortnight and then recommenced with a daily dose of 5 grains gradually increasing to one of 100 grains; the quantity administered during 10 days was 505 grains. The administration of arsenic was discontinued, the condition from which the animal was suffering having apparently resolved under the treatment. Later the horse showed depression and diminution of appetite with wasting. The sudden cessation of the arsenical treatment was considered to be the cause of this condition and accordingly 10 grains of arsenic per day were given for three days, when the animal died; ten weeks had elapsed since the last treatment had been discontinued. The cause of death was a general septicæmia which had originated in an abscess in no way connected with the arsenical treatment. As a matter of interest the muscle, kidney and liver were tested for arsenic, but none was detected; the stomach contents contained $\frac{1}{120}$th part of a grain per ounce. Evidently by far the greater part of the arsenic passes through the alimentary canal to the fæces and only a small proportion is absorbed. I am indebted to Mr. Hitchings for his careful administration and recording of the dosage of arsenic in this case.

LEAD ARSENATE.

Some arsenical compounds are employed as fruit sprays. A reference may be made to the poisonous properties of lead arsenate; but the toxic action of this compound in cattle and horses is mainly due to the lead constituent of this substance. It should, therefore, be understood that cases of poisoning of cattle and horses by lead arsenate are examples of lead poisoning.

Two bullocks were found dead in a field in Hertfordshire. The *post-mortem* examination revealed some inflammation of the bowels and some white material was observed in the stomach contents. A pail containing a quantity of this white substance was found dumped in the field and a sample of this was submitted for analysis. I found that it was lead arsenate.

A very interesting article on the clinical manifestations and surgical treatment of lead arsenate poisoning in the horse has appeared this year from the pen of P. G. MacKintosh (*Jour. Amer. Vet. Med. Ass.*, 1929, 74, 193). MacKintosh has been engaged since 1916 in active practice in an orchard district where horses had previously been lost with symptoms similar to those he describes, but the disease had been called influenza or forage poisoning. Alfalfa is cut from between the fruit trees in the orchards three or four times a season, removed from the orchard and used for feeding purposes. MacKintosh classifies his cases into first acute, second acute, first chronic and second chronic. The "first acute" form is frequently encountered and is caused by animals consuming lead arsenate from containers. The "second acute" form is met with in animals pasturing on orchard hay during the process of spraying or while the hay is still wet from the spraying; this form is more prevalent among cows. Orchard hay which has been freshly sprayed with arsenate of lead is very palatable to both horses and cows. In 1916 half an acre of orchard had been sprayed in the afternoon and three horses were turned out there the same evening. On the following morning one horse was down and the others were suffering from partial paralysis, especially of the peripheral nervous system. The "first chronic" form is encountered in horses that have been fed on sprayed orchard hay for a time, the onset of symptoms varying from six months to some years. When the horse is trotted it roars and may go down; laryngeal hemiplegia is the predominant symptom. Treatment has consisted in performing the Williams or McKillip operation. The "second chronic" form is most common in autumn and winter, when stock are grazed in the orchards after fruit picking; the symptoms exhibited are inflammation of the mucous membrane of the posterior buccal cavity with pharyngeal paralysis, rise of temperature, tracheitis, mechanical pneumonia with almost invariably a fatal termination. MacKintosh states that in his district more horses are lost from the practice of grazing them in orchards during autumn and winter than from any other form of lead poisoning.

In conclusion, it may be of interest to note that in New South Wales action was taken by the Crown on a murder charge of poisoning, the poison having been administered as lead arsenate; both lead and arsenic were

found in the organs (*Ann. Report of Government Analyst for New South Wales*, 1928).

NOTE. Since the above was written, I have found that a leading article entitled "Doctors, Dispensing and the Sale of Poisons," written from the point of view of the pharmacist, has appeared in the *Chemist and Druggist* (October 12th, 1929, p. 449). *Veterinary Medicine* (October 1929, p. 445) contains an article on "Arsenical Poisoning," by A. T. Kinsley, who describes the common vehicles of arsenic and also the symptoms, *post-mortem* findings and treatment of arsenical poisoning.

Hysteria (?) in a Parrot.

By J. WRIGHT CONCHIE, F.R.C.V.S., Kidderminster.

I was called in last Tuesday (Oct. 22nd) to a case which, to me, was rather unusual, and I should be glad to hear if any other members of the profession have encountered similar cases; if so, I should be glad of their views.

About a fortnight ago a lady had a 12 months' old pedigree Fox-terrier which suddenly developed this so-called "hysteria," and it behaved in such an alarming manner that she sent her gardener with the dog to the nearest chemist to have it destroyed. I had an urgent telephone message about 2 p.m. on October 22nd to go at once to see her parrot which she described as being affected in the same way as the dog. This parrot was well—feeding and talking—at 10 a.m.

Being interested, I lost no time in getting to the place and found that the parrot had just recovered from one of these fits or paroxysms and had been covered up to shield it from light and excitement. When I had the cover removed from the cage I noticed that this parrot—about four years' old and young so far as parrots go—showed signs of intense fear, looking up to the top of the cage with divided lateral attention, the beak being wide open as if prepared to meet some adversary. After a few moments this bird suddenly commenced screeching, flew up and down and afterwards raced round the cage, as if pursued by some imaginary foe, until exhausted. The movements and noises corresponded exactly with those exhibited by a dog with so-called "hysteria." The dog and parrot were good pals and pets of their mistress and always in close contact with one another. The owner asked me to take the parrot to my place as she could not attend to it herself, and if I thought it was suffering pain to put it in the lethal chamber.

On my journey home the parrot had two of these paroxysms and screeched to such an alarming extent that the attention of passers-by was attracted—although the bird was in a closed saloon car. On arrival at my place the bird was very exhausted and expired before treatment—tenaciously clutching the grid at the bottom of the cage with beak and claws. It was removed with difficulty.

There is no doubt in my mind that this parrot behaved—or was affected—in a similar manner to dogs suffering from "hysteria," and I should be glad if any member of the profession could throw any light on this phenomenon.

The owner was loath to deny her parrot a decent burial in the garden, but in the interests of science she allowed me to forward it to Professor Buxton—she being confident that the condition was due to what she termed a germ of infection from her puppy. (*Sic.*)

I have not yet convinced myself that this condition is of an infectious or contagious nature, sporadic cases appearing in dogs which have been isolated, and yet it gives one food for thought and consideration as to research work along this line.

In my experience this condition is mainly met with in well-bred dogs, and in cases of a mild nature these animals have been left with paralysis of limbs or amaurosis.

Should this disease or condition be due to a filterable virus, it must be one with a predilection for the nervous system—as in tetanus—but of two different types—one of excitation and another of degeneration, or probably the two acting conjointly as is evidenced by the later conditions such as paralysis, amaurosis, etc.

Perhaps some Ornitho-pathologist may have some information which would be acceptable and educative should a similar *contretemps* arise.

ABSTRACT.

New Light on Rumination.*

All who are interested in veterinary physiology must be pleased by the healthy state of research on ruminant digestion, as shewn by a steady output of articles embodying new ideas on the subject. Among the latest of those is a seventy-page monograph by Czepa and Stigler* of Vienna, with fifty illustrations, of which many are very fine roentgenograms.

By adding barium sulphate to the food and drink of sheep and goats, these researchers were able to obtain clear Roentgen-screen pictures of the passage of the impregnated material through the bowel, and of the movements of the stomachs and intestines.

Most of our knowledge of the movement of the ruminant stomachs is based on the classical researches of Flourens on animals with stomach *fistulæ*, and it was largely by improving this method that Wester was able to amplify Flourens' observations and to produce his own standard text book on rumination.

It is not surprising that observation of the movements of *intact* healthy stomachs should reveal details inevident in the vivisected animal, but it is surprising that one such detail alone should be so important that it may change our whole conception of the anatomical relations between rumen and reticulum. This important detail is that, what is commonly considered as the most anterior portion of the rumen (the *Atrium ruminis*) contracts independently of the rest of this stomach, but alternately with the reticulum. It may be that anatomists of the future will give this Atrium the status of a separate stomach (the Schleudermagen of Czepa and Stigler), though for the present these authors merely insist on its recognition as a compartment distinct from the two great sacs—the left, or dorsal, and the right, or ventral—of the rumen, from which it is anatomically divided by the *Plica atrio-ruminalis*.

*CZEPA, A., AND R. STIGLER (1929): "Der Verdauungstrakt des Wiederkäuers im Röntgenbilde." Fortschritte der Naturwissenschaftlichen Forschung Neue Folge, Heft 6. Vienna: Urban and Schwarzenberg.

The contents of the first two stomachs are subject to vigorous churning owing to (1) the alternate contractions of the two great ruminal sacs; the one being tightly contracted when the other is widely dilated, and (2) the precisely similar alternation of action of atrium and reticulum. After the first few days of extra-uterine life these two mechanisms appear to be entirely independent.

On the Roentgen screen one can detect no movement of the omasum. The function of this stomach is to act as a filter by allowing the passage of liquid and of finely divided food particles only.

What is always apparent on the screen is the presence in the highest part of the abomasum of a considerable volume of gas. Also, it is clearly revealed that only the *pars pylorica* shows peristaltic waves.

The rule concerning the passage of food and water into the stomachs of sheep and goats is somewhat as follows: In the case of young animals up to a few months old, liquids pass directly from the œsophagus into the omasum and abomasum. If, however, a tube is passed into the œsophagus of any such young animal, and liquid poured into the tube, then with the abolition of the act of swallowing is also abolished the reflex which permits this passage of liquid direct to the abomasum, and the fluid drops into the first two stomachs. In adult animals liquid passes normally into the first two stomachs alone. Solid food, as hay or roots, passes as a rule into the first two stomachs, though in young animals small particles, *e.g.*, gelatin capsules, may pass directly into the abomasum.

During regurgitation prior to chewing the cud the œsophagus closes tightly and opens widely in rapid succession, and the stomach contents pour upwards in the form of a stream of paste or liquid. After cudding, however, the chewed food is reswallowed in the form of *boli*, and it is important to note that the passage of these from the œsophagus is the same as that of food swallowed for the first time, *i.e.*, except occasionally in young animals, they return to the rumen and reticulum.

The passage of food from the first two stomachs into the other two is independent of the act of rumination. The omasum acts as a filter through which percolates a flow of liquid bearing finely divided food particles, the driving force being probably the contractions of the rumen and reticulum, and the rate of flow depending on these movements and on the amount and consistence of the stomach contents.

The authors trace the passage of ingesta right through the intestines; but for information on this, and for the full description of what has been briefly abstracted, all who are interested are recommended to consult the original article. H. E. H.

Gift for Animal Breeding Research.

A gift of £30,000 has been made to the Animal Breeding Research Department of Edinburgh University by Mr. T. B. Macaulay, president and managing director of the Sun Life Assurance Company of Canada. Of this £25,000 is to be devoted to the scientific work of the department, which aims at solving problems in the breeding of animals of economic importance, while £5,000 is to be spent in the purchase of a farm where the theories of the laboratory can be tested.

REVIEW.

[**The Examination of Horses for Soundness**, by A. D. G. MacGregor, F.R.C.V.S., F.Z.S., I.V.S., Principal of Bengal Veterinary College. Pp. 172, with illustrations and text figures. Calcutta: Thacker, Spink and Co., 1929].

The aim of a book may be found in its preface, and, in this instance, "the want of such a treatise as this . . ." is given as the motive for its production. In England, towards the close of last century, one or two books on the examination of horses for soundness were published, but they were never very popular, mainly because of their meticulous, academic precepts.

To-day, the scarcity of books on this subject, though neither clamant nor seriously felt, may be variously explained, but probably it is due to the fact that the defects or diseases that constitute recognised unsoundness are fully described in modern text books and that veterinary students are usually very well instructed regarding their nature and importance. Moreover, it would seem that in acting as expert adviser on the soundness of horses the veterinary surgeon is a law unto himself, an attitude that is supported by tradition, custom and the ever present personal factor.

The method adopted in conducting the examination of the horse may be said to vary with the examiner and if uniformity of procedure is considered requisite or even desirable, concise and reliable directions on the best method should be available to the beginner. In this connection mention should be made of a very excellent "Guide to the Examination of Horses," by J. Moore, F.R.C.V.S.—now Major Gen. Sir John Moore—and published in Calcutta in 1894. This booklet of 22 pages merits reproduction for the use of veterinary students.

Professor MacGregor's book deals more or less satisfactorily with the whole field of soundness—its definition, hereditary and acquired diseases, identification, colours, markings, technique; examinations for health, regional soundness and insurance, wind and eyes, and concludes with a chapter on elements of the law in relation to horses. It has many minor faults and a few others. Its advice is sometimes indefinite and, in places, rather puzzling, if not obscure. Distinctions between disease and conformation are not very clearly drawn and here and there the reader may be left wondering whether a stated defect should be regarded as sound or unsound. It may be that some allowance should be made for the author's observations being partly or wholly based on Indian practice, which would seem to be considerably different from that followed in Britain. In England, a horse with quittor, an open tendon sheath, or one going on three legs is not often submitted for examination as to soundness. Examination of horses for insurance in India must be a serious and comprehensive business, for it is said that windsucking, cribbing, bolting and kicking, which condemn an animal on the bare question of soundness alone (p. 35) should not be lost sight of under insurance. "Weak back," despite its uncertain pathology, is said to be a common defect of steeplechasers and polo ponies and a bad risk. Thoropin, curb, and ringbone of a *hind* limb are not regarded as serious risks, but "ringbone, sidebone,

knee spavin, enlarged fetlock and like unsoundness of the *fore legs*" must be viewed with grave suspicion from an insurance point of view as they may produce a fall, &c. (p. 38).

Chapter 5 gives details of the author's technique and his estimate of defects or diseases according to the region. Several important unsoundnesses have been overlooked. His method of making the examination is commendable, though exception may be taken to the distance, 100 yards, advised for testing the horse's action. If this distance were adhered to in practice many cases of slight lameness would escape discovery. The assertion, in italics, on p. 49, that "the lower the seat of lameness the longer will be the step or stride of the lame leg." and "the higher the seat of the trouble the shorter the stride will be," is constantly contradicted in practice. Aphoristic pronouncements on lameness seldom withstand scrutiny. They may be original, but, generally, they have no other merit. "Cherry Knee" (p. 61), is obviously intended for Cherry's disease of the carpus. The name "Cherry" does not refer to the fruit, but to Arthur Cherry, Veterinary Surgeon, who first described this disease in 1845. A curious swelling on the fetlock of race horses is mentioned on p. 67. It gradually develops into bone, causing ankylosis of the joint, yet, it is said that in the tropics horses seldom go lame from this affection—which is remarkable. The description of false quarter (p. 74), is wide of the mark. The deficiency of horn is permanent and its restoration cannot be effected by any sort of professional treatment. Thoropin (p. 90), is said to be a swelling on either side of the tendo-Achilles a few inches up from the point of the hock and "due to distension of the sheath of the extensor perforatus tendon . . . "! There are several recognised thoropins, but this one, by its position, appears to be new, though probably it represents synovial capped hock. Examination of the eyes by various methods is very well described. The author favours ophthalmoscopic examination under natural light, a method mentioned by Moore as answering well in India in 1894. The ophthalmoscope is frequently employed in England, where the naked eye examination of the eyes is not yet obsolete; indeed, this method is still regarded as efficient and reliable for the detection of corneal and lenticular opacities, which furnish a very large proportion of the unsoundness of horses' eyes.

Enthusiastic idealism may have prompted the suggestion of the desirability of testing the horse's sight for myopia, hypermetropia and astigmatism, and, in time, perhaps, this step forward will be realised, when the electric ophthalmoscope and Cuignet's method will come into daily use. But progress in that direction is likely to be hindered by considerations of utility or futility and by the fact that faulty natural conformation of the eyeball has not been included with the unquestioned unsoundnesses of the horse.

Practically one-half of our home-fed meat is obtained from cows and bulls. From this, and the fact that a large number of steers can hardly be considered as if first quality, it will be appreciated that the supplies of prime quality, home-fed beef are relatively low.—*Report on Marketing and Grading.*

RESEARCH REPORT.

[**Veterinary Research Report No. 4. 1926-27 (Department of Agriculture, New South Wales).** H. R. SEDDON, D.V.Sc., Director, Veterinary Research Station, Glenfield, N.S.W.].

The report is of considerable interest, and it is unfortunate that through pressure of work, and insufficient staff, its publication has been so long delayed. Dr. Seddon's general report on the work of the station gives, in brief, particulars of staff changes, the educational work carried out, the types of specimens received for diagnosis, and makes mention of the several researches which have been proceeding under his direction during the year. Of interest among the specimens received are those from cases of bovine mastitis—614 milk samples were received, and the following diagnoses were made: streptococcal, 455; staphylococcal, 25; *B. lactis ærogenes*, 7 (all in the same herd); *B. pyogenes*, 3; and *B. pyocyaneus*, 1. The case due to *B. pyocyaneus* was inquired into closely in view of its exceptional nature, and some details are given regarding it. It would appear that this organism can set up a chronic type of mastitis and can persist in the quarter for several weeks.

Reference is also made to a previously undescribed form of dermatitis affecting sheep. Preliminary studies showed it to be infectious and possibly connected with the presence of a fungus which, to date, could not be cultivated. A case of onchocerciasis in a sheep is reported in view of its rarity, and the occurrence of mortality from parasitic gastro-enteritis in sheep on dry, inland country is referred to, since such cases are not expected on this type of land. The common infestation under these circumstances was by ostertagia. Suppurative otitis in pigs, apparently resulting from *B. pyogenes* infection, is again noted.

The remainder of the report is taken up by articles dealing with special subjects of research. Three of these are devoted to caseous-lymphadenitis of sheep, and are of considerable interest. The first gives an account of the disease as it occurs in Australia and elsewhere, the description of the lesions met with at different stages of the disease being particularly good. The second gives details of the site of lesions in over 4,000 cases examined at a meat works, and some evidence of the incidence of the disease at different ages. The third is a discussion of the possible channels through which the bacillus of Preiz-Nocard enters the body. Seddon concludes, on very sound circumstantial, and not inconsiderable experimental, evidence, that infection gains entry through the skin in the majority of cases; that infection by inhalation may occur; and that probably infection by ingestion is decidedly rare under natural conditions.

An article on botulism and parabotulism, resulting from phosphorus deficiency, having led to the ingestion of infected carrion, is in more or less popular style, and so also is one dealing with Control of Liver Fluke. A note on the danger of using kerosene as a medicine is interesting. In connection with other work the effect of this oil was tried as a drench to sheep. The dose given was two ounces, and it was administered to an eight-months lamb and a five-years-old ewe. In each case there were signs of acute distress shortly after drenching, the symptoms rather suggesting that some had entered the trachea.

The subjects appeared to recover from this, but relapsed again about the second day, and were killed on the third day after dosing, still showing acute symptoms. Autopsy showed signs of toxæmia and extensive pneumonic lesions affecting both lungs. The sheep had received different brands of kerosene. A case of forage poisoning in horses is the subject of a separate article contributed by G. Edgar, B.V.Sc., who describes the diagnostic procedure he adopted, and concludes that in this case the toxicogenic organism was *B. botulinus*, type *B.* Further studies by Edgar include an investigation of an outbreak of atypical blackleg in calves (the lesions in these cases were primarily in the submaxillary space), and work dealing with the identity of the causative organism of so-called Black disease (*B. œdematiens* infection of the livers of sheep, following liver damage by fluke migrations). The Black disease strains appear to differ from the classical type only in the matter of size; being appreciably longer and broader. A point of considerable interest is that while this organism has been isolated from normal livers in Black-disease areas, it has not been so obtained in other districts that are free of the disease.

The last part of the report deals with feeding tests carried out with plants suspected of being poisonous. This is a most valuable line of research work, and Dr. Seddon is to be congratulated on the energetic way in which he is pushing forward with it. It is an example that might well be followed elsewhere. The following tests are described in this report: *Lautana crocea* (red and yellow-flowered lautana)—definitely poisonous. *Cryptostemma colendulaceum* (cape weed)—no evidence of poisoning obtained, but further tests to be made on lambs. *Euphorbia peplus* (petty spurge)—poisonous. *Plantago varia* (wild sago, plantain, or lamb's tongue)—not poisonous in tests made, but it is thought it may become so under certain seasonal and other conditions..

Work on the plant *Stzachys arvensis* showed that the shivers-producing principle is extractable from the seeds by ether, but not by alcohol.

Copies of this report are obtainable from the Under-Secretary, Department of Agriculture, Sydney, N.S.W.

D. G.

Blood Tests for Poultry.

The Ministry of Agriculture announces a reduction from 6d. to 3d. of the fee charged at its Veterinary Laboratory for carrying out individual blood agglutination tests in the case of birds suspected of being carriers of bacillary white diarrhœa.

The Ministry of Agriculture realises that this disease is one of the greatest handicaps which the poultry industry has to face at present, inasmuch as it makes the breeding of healthy chicks almost impossible on many farms. Most poultry keepers know that the agglutination test is the most practicable means of identifying the "carrier" hens, which transmit the disease through their eggs to the chicks. The evidence available shows, however, that only a small proportion of the breeding flocks in this country are being subjected to this valuable test.

Applications for tests to be carried out at the Ministry's Laboratory should be addressed to the Director, Veterinary Laboratory, New Haw, Weybridge, who will supply instructions and further particulars in reply to inquiries.—*The Times.*

R.A.V.C. Old Comrades' Association Dinner.

The Secretary on the Great Work already Done.

With the approach of double-figure age the R.A.V.C. Old Comrades' Association maintains a corresponding vigour and rate of growth which is at once a testimony to the ability with which its officers conduct the affairs of the Association, and to the enthusiasm with which its exceedingly praiseworthy objects are pursued. These aims were stressed in a telling manner by the Hon. Secretary, Mr. J. Corr, at the well-attended Ninth Annual Re-union Dinner, which was held at Anderton's Hotel, Fleet Street, E.C., on Friday, October 25th, 1929, with the President (Major-General Sir L. J. Blenkinsop) in the Chair.

Throughout an admirably served repast, Mr. Wally Smith's Orchestra entertained the company.

Following the honouring of the Loyal Toasts, on the call of the President, the toast of "The Association" was submitted by the Hon. Secretary.

Mr. Corr first expressed his appreciation of the privilege of presenting that toast to them, and proceeded to make reference to Remarque's "All Quiet on the Western Front"—that wonderful book on the War, which doubtless everyone there that night had read, in which there was one paragraph which made an immense appeal to him. The author was talking about the different characteristics thrown up in human nature by the War, and he said that by far the most important was that it awakened a sense of *esprit de corps*, which developed into the finest thing that arose out of the War—comradeship. It was that spirit that they sought to further and maintain in the Old Comrades' Association. (Hear, hear.) It was that spirit of comradeship that they might almost describe as the foundation stone of the Association. The fostering of that spirit was the Association's primary object, and secondly they were out to help those among their comrades who had fallen on hard times. Those were the men whom the Association wanted to help, and although they might be tempted to say that their subscription of half-a-crown would not do much to assist towards that end, and that it was only a drop in the bucket, they must remember that many drops would fill the bucket.

In that connection he would like to tell them that in the nine years during which the Old Comrades' Association had been in existence they had given financial aid to over 400 men; that meant that a sum of over £3,000 had been disbursed in giving financial help alone. But in addition to that, employment had been found for over 100 men. It might be that even such figures as those did not seem impressive to them, but if they wanted to get an idea of the difficulty of the work, let them set out to find employment for one single man, and they would become painfully aware of the difficulty of the task.

Mr. Corr proceeded to relate some specific instances of the valuable work which is being done by the Association both in the direction of affording financial relief and of finding employment, and added that he had mentioned them in order to give those present some idea of the sort of efforts the Association was making on behalf of those of its members who needed help.

After nine years the Association was still progressing, even if slowly, and he thought they could safely say that it had got over its teething difficulties; in fact, the Association was now firmly established, and he would remind any who might be impatient that anything in this world that had achieved greatness had always risen from small beginnings. (Applause.)

The toast of "The Visitors" was proposed by Major General SIR JOHN MOORE, who said that those re-union dinners were the only occasions upon which they, as an Association, could invite their friends—friends who perhaps had served with them in their times of trouble and hard work in the various theatres of war, but that fact made the present occasion a very pleasant one for all of them. (Applause.) He was told, before he came into that room, that speeches were to be very short, and therefore he was not going to take up much of their time, because he knew that they wanted to have a good talk with their friends of olden days; moreover, he did not want to make invidious comparisons regarding their friends who were with them as guests that evening. He had, however, been asked to make special mention of one or two who had served with them in their hospitals in France and elsewhere.

Amongst their good friends in the various theatres of war—and he could speak with certainty of France in this connection—clergymen were very much to the front. They relieved the drudgery inasmuch as very often they were instrumental in getting up little shows that afforded them great pleasure. He was reminded of the Rev. Mr. Naters, who was there that night with Colonel Walker, and who was with them in the Calais district—they were very pleased to have Mr. Naters with them. (Applause.)

Speaking of clergymen, he was also reminded of another, who was with them when they were in the Abbeville area and who, to their sorrow, died this time last year. He was sure that although this padre never came to their re-union, he was always with them in the spirit: he used to delight in writing to those of them who knew him. Always with them, however, and always welcome was another gentleman who was in charge of the Church Army Hut in Calais—Mr. Lumley. Mr. Lumley ran a very excellent show in that hut of his. He also had to welcome one friend from the far-off regions of the Antipodes: Captain Angus McIntosh, while he must not omit to mention the representatives of the Veterinary Press, which was always ready to support the Association in any way in its power. (Hear, hear.) The last visitor of whom he would make mention was, in one respect at least, the most remarkable of them all, for Mr. Fred Mansell, while still hale and hearty, boasted 87 years of age. (Applause.)

With the special mention of those few, and not forgetting those whom he had not mentioned, he would ask them to be upstanding and charge their glasses to drink to the health of their visitors, coupling with the toast the names of the Rev. Mr. Naters and Mr. Fred Mansell.

The Rev. MR. NATERS, who was the first of the visitors to reply to the enthusiastically-honoured toast, said that he had been warned by Colonel Walker that that pleasant duty might be thrust upon him, and he felt that he must do what he was told to do by his late Commanding Officer. (Applause.) He thought he had been selected for that duty because, as he supposed, he was the only ex-chaplain present, and also because what he did not know about mules and horses would fill volumes. (Laughter.) It had been very kind of Colonel Walker to send him a notice of the dinner, and he was only too glad to avail himself of the opportunity: that he wanted to be present he could prove by the fact that he had that day come from Yorkshire for the purpose. (Applause.)

It was very nice again to renew old acquaintances and, as they had been told, the great thing about the after effects of the War was that they maintained a spirit of comradeship throughout all ranks, and he thought that re-union dinners that fostered and maintained that spirit were the greatest thing to-day that they could have. They made them feel young again, and that was a fine thing for all of then, for so long as they felt young they could do their job, whatever that might be. (Applause.)

Mr. FRED MANSELL, who also replied, said that it was very true, unfortunately, that he was the oldest member of that gallant regiment, of his service in which those re-unions provided him with such pleasant memories. It was with particular gratification and pleasure that he recalled his still-continued close friendship with Major Hobday and, indeed, one of the greatest delights of his life was to come there and meet them all. He thanked General Moore very heartily for the terms in which he had proposed that toast and for coupling his name with it, and the company for the hearty manner in which that toast had been received.

From The Veterinarian, November, 1829.

On "Staking," or "Bound," in Cattle.

By Mr. CARTWRIGHT, of Whitchurch.

CASE I.

A two-year old bullock belonging to some Welsh droves was taken ill on Wednesday morning the 31st October, 1827. He, amongst many others, had been grazing in a field near Bangor the previous night and until the morning of the 31st.

31*st*, 6 *p.m.* *Symptoms.*—Has a downcast look; grunts; stands up, and will scarcely stir about. Has had lbij of blood taken from him just before I saw him, and had been drenched with salt and water. I ordered him Glaubers' salts six ounces, and castor oil four ounces. Died some time in the night.

Dissection.—The foliated or third stomach was quite full and hard, each layer being so hard that it would snap short off; and upon each layer there was a thin pellicle of secretion, of a blueish colour, which could be easily separated. The ingesta were regularly laid between each leaf of the stomach, and each layer was again divided by the small leaves that are about an inch or two in depth, and attached to the muscular part of the stomach. The leaves of the stomach were of a light pinkish hue, but seemed inflamed, as the vessels were distended with blood. The leaves appeared to be composed of two coats, each covered with numerous papilliary processes, and the blood-vessels lay between the coats. The papillæ above-mentioned left marks all over the contents which were in contact. There was a regular row of the papillæ upon the whole length of the large vessels. The lungs seemed inflamed, and also the omentum (attached to the stomach), and in some parts of it were patches of extravasation.

CASE II.

A two-year old heifer had been grazing with the above bullock at Bangor, and had the same symptoms. She had been bled, and a great quantity of castor oil, aloes, salts, etc. given her, but without avail, as she died on the Saturday following, having been taken ill on the previous Wednesday.

Dissection.—Three parts of the contents of the third stomach were soft and digested, but the remaining part was as hard as in the bullock. Where the contents was soft, the colour of the leaves of the stomach was of a blackish hue; but where hard, pinkish. The lungs were not inflamed. Just before the commencement of the third stomach, there was great thickening of its coats, effusion of lymph and blood, and in some places ulceration.

CASE III.

Another bullock was taken ill on the same Wednesday, and died on the Saturday following. The symptoms were the same, and much purging medicine was given.

Dissection.—The contents of the third stomach were soft, but the stomach was very full. The rumen or paunch contained much undigested hay, which had improperly been given; but the mass was perfectly soft, and a considerable quantity of fluid in it.

CASE IV.

A two-year old bullock was taken unwell on Saturday, the 3rd of November, 1827, and was obliged to be left on the road, after having gone about two miles. He had the same symptoms as the foregoing. He also had had much cathartic medicine given to him, and on Monday morning following, no dung having yet passed through him, and the owner thinking he would not recover, he was sold to a butcher.

Dissection.—His third stomach was very full (like the preceding case), but soft.

Four others got well; but it was eight or nine days before any medicine operated, although large quantities were given. They lay down all the time until their bowels were opened, and ate grass.

One other was obliged to be killed on the road, having the same complaint, the morning they left Bangor, where they had been grazing.

Two others were taken ill at Ivetsy Bank (twenty-three miles distant) with the same complaint; but what became of them I do not know.

Three heifers were lost the same week in Lord Combermere's park, in this neighbourhood, by eating dead leaves, producing the same disease.

In the third stomach of every one of them there were a great number of small seeds from some plant, and which were seen in the field they were grazing in at Bangor.

OBSERVATIONS.

It is not at all improbable that the seeds found in the stomachs may have had some influence in producing the disease by paralysing the stomach; but we well know that cattle are often "staked" by eating almost any sort of grass, especially of a dry and husky nature, that grows about hedges, and which may have been the case in these instances.

It appears to me that when the maniplus, or third stomach, of cattle is quite filled and hard, like many of the foregoing cases, medicine has very little effect in expelling the contents, as the stomach must be completely exhausted by the distension and repeated efforts to expel the ingesta; for when the cavities between each leaf become filled, and the food will not come out by the usual contraction, all the repeated pressure does nothing more than force out the fluid and make what remains harder and harder.

In some of the two-years-old there was upwards of two pounds of castor oil, two or three pounds of Glauber's salts, an ounce of Barbadoes aloes, with spirit of turpentine and ginger, and repeated small doses of warm water, raking, clysters, &c., but to no purpose; and in one case it is very likely that the medicine had an injurious effect. *Vide* case II.

I am inclined to think that it is very improper to let them have meat of any description, though they *will* eat it, as they sometimes will; for it must only increase the distension of the paunch, and, in some cases, the third stomach; but the only thing admissible is warm water, to soften the ingesta, and purging medicine to increase the secretion and stimulate the stomach to contract on its contents, and to bring on purging.

Clysters, I think, are but of little use, as the fæces in the intestines are generally soft, and the bowels are sufficiently sound and active to expel what is likely to be injurious.

Bleeding to any considerable extent is improper, as it must ultimately weaken the system generally, and lessen the secretion in the stomach. There was nothing in any of these cases that indicated a repetition of bleeding. There was no effusion or gangrene, but merely a little distension of blood-vessels. These deaths, I believe, are occasioned solely by the exhaustion produced by the disease, as there was little or no injury or lesion of the parieties of the stomachs.

NOTES AND NEWS.

The Editor will be glad to receive items of professional interest for inclusion in these columns.

Diary of Events.

Nov. 11th—Meeting of the Editorial Committee, N.V.M.A., 10 Gray's Inn Square, London, W.C.1. at 4-30 p.m.

Nov. 12th—Meeting of the Dumfries and Galloway Division, N.V.M.A., at the Station Hotel, Dumfries, 12-15 p.m.

Nov. 14th—Meeting of the Midland Counties Division, N.V.M.A., at the Grand Hotel, Birmingham, 2 p.m.

Nov. 19th—Meeting of the North Midland Division, at King's Head Hotel, Change Alley, Sheffield, 4-30 p.m.

Nov. 20th—Meeting of the Western Counties Division, N.V.M.A., at Taunton.

Copies of the Rules and Regulations governing membership of the National Veterinary Medical Association have now been distributed to all members. Any member who has failed to receive a copy, however, should communicate with the Secretary, who will send a duplicate.

A CONFUSION OF NAMES.

A correspondent writes:—"If you will look to p. 904 of the *Veterinary Record* for October 12th, you will see an error of some importance. Linton has made a mistake in referring advances made in feeding pit ponies to the late W. Hunting, of London, who helped to suppress glanders in London. The Hunting who reformed the economical feeding of pit ponies was Charles Hunting, M.R.C.V.S. of South Hetton Collieries, and the father of W. Hunting, F.R.C.V.S., of London, founder of the *Veterinary Record*.

PERSONAL.

Practitioner's Municipal Success.—After nine years' service as Borough Councillor at Buxton, Mr. George Howe, F.R.C.V.S., of Newmarket Street, Buxton, has been re-

turned at the head of the poll on the occasion of the Borough Council Election, held on November 1st. Mr. Howe, who secured a majority of 371 over his nearest opponent, is doing valuable work as Vice-Chairman of the Health Committee, and we feel that his public-spirited example might well be followed by many more members of our profession than the comparative few who now devote time to the interests of their fellow townsmen by serving on local authorities. Mr. Howe's work in this connection has resulted in special care and attention being given to the meat and milk supply of Buxton.

. . . . . .

Appointments.—Mr. W. R. Kerr, M.R.C.V.S., has been appointed Lecturer on Veterinary Science in the Harper-Adams Agricultural College, Newport, Salop. After graduating at the Royal (Dick) Veterinary College, Edinburgh, Mr. Kerr was appointed to the Animal Diseases Division of the Ministry of Agriculture for Northern Ireland, his special work being connected with diseases of poultry.

. . . . . .

Mr. J. McK. McKellar, M.R.C.V.S., D.V.S.M., has been appointed Assistant Veterinary Officer to the County Council of the West Riding of Yorkshire instead of Mr. A. B. Kerr, M.R.C.V.S., D.V.S.M., who has accepted an appointment under the County Council of Cumberland.

. . . . . .

Mr. R. B. H. Murray, M.R.C.V.S., D.V.S.M., has been appointed as Veterinary Officer, Uganda, and Mr. H. H. Brassey-Edwards, M.R.C.V.S., Deputy Chief Veterinary Officer, Kenya, has been promoted to the position of Chief Veterinary Officer, Kenya.

Edinburgh Degree of B.Sc. in Veterinary Science.

Students of the Royal (Dick) Veterinary College, Edinburgh, have passed the following subjects in examinations leading to the Degree of B.Sc. in Veterinary Science of the University of Edinburgh :—Physics, Robert McNeil ; Anatomy, William F. Barton, James D. Harper ; Physiology, Duncan A. MacPherson ; Sanitary Science and Veterinary Hygiene, James Omand, William G. Robinson and Andrew E. Stevenson.

Army Veterinary Service.

Movements of Officers.

Major R. W. Mellard, D.S.O., returned to Brighton for duty on the 19th October.

Major G. E. Oxspring was posted from Brighton to Woolwich for duty on the 21st October.

Colonel J. J. B. Tapley, D.S.O., arrived home from Egypt on the 24th October, and assumed duty as Assistant Director of Veterinary Services, Eastern Command, on the 25th October.

Major B. A. Jarvis has arrived home from the Rhine, and is now doing duty in the Aldershot Command.

. . . . . .

London Gazette—War Office—Territorial Army.

Nov. 1.—Lt. F. S. Whitfield to be Capt. (June 27).

The King has conferred the Territorial Decoration upon Maj. F. J. Moon (ret.) under the terms of the Royal Warrant dated Oct. 13, 1920.

British Glues and Chemicals, Ltd.

We have pleasure in giving publicity to the following information relative to their exhibit at the Ayr Congress of the Association, which has now been supplied by British Glues and Chemicals, Ltd. The firm exhibited their well-known Churn Brand Sterilised Feeding Bone Flour and Churn Brand Mineral Mixtures. There was little doubt that the excellent paper by Dr. Orr on Minerals, and subsequent discussion, elicited considerable interest on the part of members of the veterinary profession, shewn in the enquiries made and literature read.

Available were some very interesting pamphlets and booklets dealing with Mineral Feeding, which can be obtained gratis on application.

Great emphasis is placed on the fact that all the Bone Products offered for feeding purposes by the Company, such as Churn Brand Sterilised Feeding Bone Flour, have been subjected to a process which kills all disease germs, and in the case of their Bone Flour, even anthrax spores could not live through it. Moreover, the bones are of English origin, being collected daily from the butchers' shops, treated in special plant and thoroughly sterilised. Prices are keen market prices and, to assist the veterinarian, special merchants' terms are available.

Several well-known members of the profession have claimed some considerable success for Bone Flour, with pigs, horses and dairy cows.

Minerals are to-day regarded as a necessity and their recommendation is of course according to ruling conditions.

Available *gratis* are the services of the Advisory Dept., who will be glad to hear from veterinarians on the subject of minerals and feeding of farm stock and manuring of land. Communications should be addressed to British Glues and Chemicals, Ltd., Advisory Dept., Imperial House, Kingsway, W.C.2.

The Prime Minister, presiding over a smoking concert in the *Berengaria*, said the age of the horse had not passed. In Chicago this year there had been, he said, 10,000 more horse-drawn vehicles licensed in the first six months than there had been for the whole of 1928. In New York all the milk, coal and laundry vans are horse-drawn.

CORRESPONDENCE.

Letters to the Editor should reach the Office not later than by the first post on Tuesday morning for insertion in following Saturday's issue.

All correspondence must bear the name and address of the contributor for publication.

The Editor does not hold himself responsible for the opinions of his correspondents

Report of the Departmental Committee on the Reconstruction of the Royal Veterinary College.

To the Editor of the Veterinary Record.

Sir,—My attention was arrested by the reference in your issue of November 2nd to the report of the Departmental Committee on the re-organisation of the Royal Veterinary College.

Your wise reservation to postpone a detailed consideration of the report until there had been time for a mature study of the contents, as the importance of the subject matter demands, and your timely exhortation to your readers to reserve judgment until the terms of the report had been read and mastered, were well advised.

As one, doubtless of many, who in the intervening period since the publication of the report have read and re-read it with a view to mastering not merely the contents but the thoughts and intentions underlying the bare statement of those who are responsible for its conception and production, I feel that some reference may fairly be made to a subject, which, as you so rightly say, is of "momentous importance to veterinary science and agriculture." However deeply the recommendations of the Committee may affect the Royal Veterinary College, and these are so patent as to be readily appreciated by everyone who takes even the slightest interest in our professional matters, still more, infinitely more, will the interpretation of these recommendations and any future action which may resolve therefrom affect, in a vital sense, the future well-being of the profession. Our first consideration of the report must therefore be in regard to the general affects of its recommendations upon the profession as a whole. For the first

time in our history the State is asked to be entirely responsible, financially, for the re-organisation and re-habilitation of one of our teaching institutions, and, apparently, if it does not step in quickly the oldest teaching institution must discharge its teachers and close its doors immediately. It is useless to ask why such a state of affairs has not been foreseen, and some resentment may not unnaturally be felt that things have been permitted to come to such a pass. The retort might well be made that the profession as a whole has exhibited a lamentable apathy in regard to the well-being of its schools, but recrimination is useless. Something must be done, and that quickly, if the shadow of an impending d'bâcle is to be dispelled.

The appearance of the long-awaited report of the Departmental Committee will therefore be welcomed, and will probably meet with general agreement in so far, at least, as it emphasises the deplorable state of the Royal Veterinary College, and the urgent necessity for the provision of suitable buildings and an adequate staff. Some doubt may, however, reasonably be entertained by many as to whether the Committee's recommendations for the attainment of these desiderata are in the best interests of the profession as a whole. During the last century, and perhaps to a greater extent during the past decade, much has been said and even more has been written concerning what has been termed the "status" of the profession or, more correctly, its lack of status among the other learned professions. Those of us who have spent a considerable part of our professional life in close fellowship with other sciences, professions, and educational bodies, have become convinced that the principal cause for any lack of status which may exist lies, primarily, in the amazing ignorance of others of the system and scope of veterinary education. This is hardly to be wondered at, for it must be admitted that our splendid isolation due, principally, to the water-tighting of our educational establishments, could hardly have led to any other conclusion. It will, I think, be readily admitted that such a system is fundamentally bad in so far as our students themselves are concerned, and it is equally bad for the teachers. The Committee appear to have applied themselves diligently to a consideration of this "vexed question," and, as a result of their deliberations, have been led to the conclusion that rebuilding the College on the present site is to be recommended. It might be contended that the evidence before the Committee was from somewhat limited sources and did not represent the views of the profession outside the teaching staff of the College itself, for the witnesses were confined, with one exception, to a few who are, or have been, members of the staffs of the College or the Research Institute.

The conclusion to which the Committee came was arrived at "*solely from consideration of the interests of veterinary education*, and after taking account of every aspect of our difficult problem," and it is on this point that one may join issue with the Committee. The necessity for as close an alliance as may be with university life is stressed by the Committee, yet they appear to be satisfied with a scheme which provides for the maintenance of the Royal Veterinary College as a teaching centre at Camden Town and seeks *affiliation* with London University. Those of us who have had intimate experience with the value of *affiliation* know beyond all question of doubt that it is insufficient for the purpose for which it is intended. The Committee obviously realise this fact, for they say "it would not follow that all students of the College would automatically become internal students of the University as it is obvious that the University could only describe in this way those students *who are taking a university degree*." I do submit, Sir, and I know that in this I have the backing of many members of the profession, that half measures of this kind are utterly valueless in so far as the development of a university status for our students is concerned.

Of the reasons which apparently led the Committee to decide upon London as the most suitable place for the College, the only one which appears to have any real weight is the admitted difficulty of obtaining sufficient clinical material for the requisite teaching of students outside thickly-populated districts. Their remaining arguments carry no conviction at all; indeed, they could be applied with much greater force in favour of transferring the College to one of the older universities, for preference, to Cambridge, in view of the tremendous development of its scientific departments during recent years. It is, indeed, difficult to understand how the Committee could have failed to explore such a possible solution of all the difficulties concomitant with their "vexed question." There cannot be one member of the Committee who will not admit that as a centre for the teaching of pure and applied science Cambridge is without a rival in any part of the world. Its department of agriculture is famous for its work on animal husbandry, animal nutrition and genetics, and possesses a well-equipped university farm. The University also provides first rate teaching in many other subjects of the veterinary curriculum, especially chemistry, botany, zoology, physiology, pathology, parasitology and entomology. In addition, it provides in far greater measure than most other universities "those facilities for the intermingling of teachers and students" and that "community resulting from membership of a university which is helpful to students in their recreations and games, and encourages the conception of citizenship," which the Committee stress so strongly as being highly desirable for the well-being of veterinary students.

There is another important point, and one which the Committee have appeared to have overlooked entirely, namely, that every year there come to Cambridge many young men of a most desirable type, some of whom would take up veterinary science as lief as any other if only facilities were available in the University, but, under present conditions, are not prepared to sacrifice their University life and to proceed to Camden Town for their education. Many of these now take up agriculture, a course which offers no better prospects in future life than does veterinary science. Against this it might be argued that there are many men taking veterinary science in our schools whose parents could ill afford the expense involved by a university career in Cambridge. If no other centre of veterinary training were available, this would be a valid objection, but of course it is not so. There is overwhelming evidence that Cambridge is a far more suitable centre than any other if the difficulty of providing sufficient clinical experience could be overcome. In addition, it would cost far less to establish a school in that university, and far less to maintain it than would be the case if the recommendations of the Committee were carried out. Further, there is a possibility that were it decided to have the school in Cambridge money for the development of the clinical side would be forthcoming from sources other than those which the Committee had in mind. There need be no difficulty in so far as production of clinical material is concerned; indeed, under the scheme which I have in mind this all-important aspect of veterinary training could be materially strengthened. Any number of students could be educated during the first three years of the present curriculum largely in existing university departments. Those aspects of their training which require specialised teaching with a veterinary bias could have special teachers, and during this period the students could acquire knowledge of animal management, nutrition, and genetics, especially from the experimental side, which is at present denied them. During the later part of the period they could become acquainted with the clinical aspects of diseases of *farm animals* for which at present there is no provision of a practical nature in any of our schools. At the end of this period they could proceed to Camden Town for their clinical training in much the same way as medical students who are educated in Cambridge receive their hospital training in London. The site at Camden Town could be developed as a first-class veterinary hospital, and here the subjects of veterinary medicine and surgery would be taught. In this way the whole range of clinical instructions could be enlarged to embrace all classes of domestic animals, and more time could be devoted to this most important aspect of veterinary training. Such an arrangement would meet the requirements voiced in the report of

the Lovat Committee. The students would enjoy all the benefits of corporate life in one of our oldest universities and could, should they so desire, devote themselves to preliminary study of pure science for which credit would be given in the professional curriculum just as it is in the case of medical students.

Post-graduate training in tropical veterinary medicine could be carried out in existing departments of the universities under teachers of world-wide renown each of whom is a specialist in his own subject. Moreover, such students would be eligible to take a research degree "Master of Science," or "Doctor of Philosophy."

It is unnecessary for me to enlarge upon the advantages of such a course of action, since they must be obvious to everyone. I must, however, apologise for the space which I have taken up, but, with the first-hand knowledge which I possess I should be failing in my duty to my profession were I to refrain from giving expression thereto. Indeed, to withhold it would not be honest. I earnestly hope that everyone concerned will give the matter their most careful consideration, always bearing in mind the far-reaching effects of any decision that may be come to.

"Keep the young generations in hail,
And bequeath them no toppled house."

I am, Sir, yours obediently, J. BASIL BUXTON.

University of Cambridge,
Department of Animal Pathology.
November 4th, 1929.

Deletion of Dosage.

TO THE EDITOR OF THE VETERINARY RECORD.

Sir,—I was very pleased to see Professor McCunn's letter in the issue of the *Record*, dated November 2nd. I fully agree with him. Of course there are two sides to this, as in other questions.

In February, 1928, there appeared in *The Lancet* an article describing a new treatment for burns, in which a two per cent. aqueous solution of tannic acid was used. I have tried this treatment and found it excellent. Now the Medical Research Council is issuing a special report on the treatment including first-aid instruction. Fancy the *British Medical Journal* cutting out or suppressing such matter. No doubt there is at the present time a great tendency to push the sale of preparations for the treatment of all animal diseases and the encouragement of so-called home doctoring, but some of the responsibility for this rests with the profession itself. It is decidedly easier and pleasanter to be paid to instruct an owner how to treat his sick animal for a particular disease than actually to carry out the treatment itself. The fact that the particular disease probably does not exist at all, and that the advice when given is generally bad for the owner and worse for the animal, is not considered. Suppression will not suppress this evil, because professional medicine vendors and instructors on home doctoring can always get any information they may wish to broadcast. The real remedy lies in the direction indicated by Professor McCunn. Recently I was asked to delete from an article a paragraph in which was described the material used in the treatment, and the percentages. Now it so happened that I thought, in this particular instance, it was a treatment (whatever its value might ultimately prove to be) which would require a certain amount of skill and be beyond office advisers, but possibly it is not so.

Veterinary medicine will never find its highest expression until we have complete "bills of mortality" for animals as well as for man. The Coroner is the great enemy of the mountebank and the quack in human medicine, and one sometimes wonders if a similar institution would be useful in the animal world, but perhaps there are occasions when most of us would be happier without. An old farmer once said to me: "You know we do love to do a bit of doctoring." It is a love which has come down through the centuries and will continue to the end.

Yours faithfully, F. T. HARVEY.

St. Columb.
November 3rd, 1929.

Canine Hysteria.

TO THE EDITOR OF THE VETERINARY RECORD.

Sir,—With reference to the letter in your issue of November 2nd, dealing with "canine hysteria," I do not agree with your correspondent's views.

Firstly, the number of dogs kept in the district in which I am at present working has not increased to any appreciable extent during the last three or four years, and yet four years ago hysteria was very seldom met with, whereas now we get two or three cases every week.

Secondly, he states the cause as gastric or intestinal irritation due to faulty feeding. In all the cases I have treated, I have not changed the feeding of the animal in any way. I have ordered the animal not to be excited and to be kept as quiet as possible.

With regard to medicinal treatment, I prescribed pot. bromide in from 10 to 20 gr. doses two or three times daily and, should the animal have an hysterical turn, as soon as it has sufficiently recovered, a dose of chloretone was given (dose according to age and size of animal).

I have only had one case that failed to recover under this treatment and I think now this was a case of chorea and not hysteria.

Now with reference to the disease being transmitted from one dog to another: I consider it infectious inasmuch as one dog, on hearing another in a fit, will in 50 per cent. of cases develop similar symptoms. To give one instance: three weeks ago I was disturbed one evening by a row outside the house; this turned out to be a dog suffering from hysteria. My own dog, on hearing this, commenced running round the room, with a wild expression and in two minutes had developed hysteria. It has had two attacks since—one on each of the days following—and since then has been practically normal.

My experience of this disease is that it runs a course of from three to six weeks, and during that time the affected animal is liable to have a so-called fit at any moment, more especially if he is excited in any way.

Yours faithfully, EDWARD A. BURGON, M.R.C.V.S.
c/o Colin C. Baird & Son,
Edinburgh.
November 3rd, 1929.

. . . . . .

TO THE EDITOR OF THE VETERINARY RECORD.

Sir,—There seems to be some difference of opinion as to what constitutes hysteria. To me, after seeing the symptoms of this malady in the human being and those of the so-called hysteria in the dog, it appears that, so far as manifestation is concerned, they are identical in both species. I believe I was the first to use this term, and long before the epizootic form became widely spread. I would recommend those who would like to know more about the physiology of this complaint in the dog to study the *Lectures on Conditioned Reflexes*, by Professor Ivan Petrovitch Pavlov, translated from the Russian by Dr. W. Horsley Gault, a co-worker in Professor Pavlov's Laboratory, Institute of Experimental Medicine, 1925-28, and published by Martin Lawrence, Ltd., London, 1929. This work is based on twenty-five years of objective study of the higher nervous activity (behaviour) of animals.

A work to which I would like to draw the attention of young veterinary surgeons is *An Introduction to the Study of Experimental Medicine*, by Claude Bernard (1865), translated from the French by Henry Copley Greene, and published by MacMillan & Co., Ltd., 1927. The study of such would prevent them jumping to erroneous conclusions to which their seniors are too often prone. It is the logic of medicine. Yours faithfully, HENRY GRAY.

The Editor acknowledges the receipt of the following:—Report of a meeting of the Derbyshire Division, N.V.M.A., from Captain O. V. Gunning, Hon. Secretary. Communications from Lt.-Col. T. D. Young (London), and Major H. Kirk (London).